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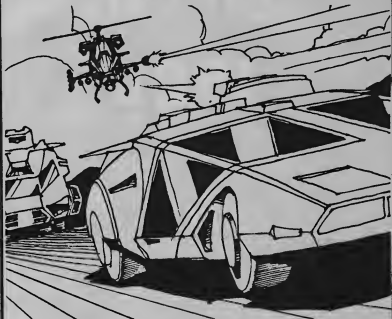
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# EDITORIAL

## PSYCHOHISTORY



by Isaac Asimov

"Psychohistory" is one of three words (that I know of) that I get early-use credit for in *The Oxford English Dictionary*. The other two, for the record, are "positronic" and "robotics."

This is not at all unusual. Every science fiction writer makes up words and sometimes they actually penetrate the language (but then English is notoriously hospitable to neologisms—which is one of its strengths, in my opinion).

The more unimaginative and inevitable a word is, the more likely it is to be adopted, and I am not prone to making up words wildly. Thus, once the positron was discovered and named in 1935, and once "robot" became accepted as a term for a humanoid automaton in the 1920s, it was simply a matter of time before the words "positronic" and "robotics" appeared in print. That I seem to have been the first in each case is purely accidental.

In fact, when I first used the word "positronic" in print (in my story "Reason," which appeared in the April 1941 issue of *Astounding Science Fiction*) as a natural analogue of "electronic," I thought the

word already existed. The same was true when I first used the word "robotics," in my story "Runaround," which appeared in the March 1942 issue of *Astounding Science Fiction*.

In the case of "psychohistory," however, I suspected that the word was not in common use, and might even never have been used before. (Actually, the O.E.D. cites one example of its use as early as 1934.) I first used it in my story, "Foundation," which appeared in the May 1942 issue of *Astounding Science Fiction*.

I came up with the word because John Campbell and I were discussing the course I was to take in the Foundation series once I came to him with my initial idea on the subject. I was quite frank in my intention of using Edward Gibbon's *Decline and Fall of the Roman Empire* as my model and as a basic guide for plot ideas, but I needed something that would make science fiction out of it. I couldn't simply call it the Galactic Empire and then just treat it as a hypertrophied Roman Empire.

So I suggested we add the fact that a mathematical treatment ex-

isted whereby the future could be predicted in a statistical fashion, and I called it "psychohistory." Actually, it was a poor word and did not represent what I truly meant. I should have called it "psychosociology" (a word which the O.E.D. lists as having first been used in 1928). However, I was so intent on history, thanks to Gibbon, that I could think of nothing but psychohistory. In any case, Campbell was enthusiastic about the idea and we were off and running.

I modeled my concept of psychohistory on the kinetic theory of gases, which I had been beat over the head with in my physical chemistry classes. The molecules making up gases moved in an absolutely random fashion in any direction in three dimensions and in a wide range of speeds. Nevertheless, one could fairly describe what those motions would be *on the average* and work out the gas laws from those average motions with an enormous degree of precision.

In other words, although one couldn't possibly predict what a single molecule would do, one could accurately predict what umptillions of them would do.

So I applied that notion to human beings. Each individual human being might have "free will" but a huge mob of them should behave with some sort of predictability, and the analysis of "mob behavior" was my psychohistory.

There were two conditions that I had to set up in order to make it work, and they were not chosen

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carelessly. I picked them in order to make psychohistory more like kinetic theory. First, I had to deal with a large number of human beings, as kinetic theory worked with a large number of molecules. Neither would work for small numbers. It is for that reason that I had the Galactic Empire consist of twenty-five million worlds, each with an average population of four billion. That meant a total human population of one hundred quadrillion. (In my heart, I didn't think that was enough, but I didn't want to place any greater strain on the suspension of disbelief than I absolutely had to.)

Second, I had to retain the "randomness" factor. I couldn't expect human beings to behave as randomly as molecules, but they might approach such behavior if they had no idea as to what was expected of them. So it was necessary to suppose that human beings in general did not know what the predictions of psychohistory were and therefore would not tailor their activities to suit.

Much later in the game, I thought of a third condition that I didn't think of earlier simply because I had taken it so completely for granted. The kinetic theory assumes that gases are made up of nothing *but* molecules, and psychohistory will only work if the hosts of intelligence are made up of nothing *but* human beings. In other words, the presence of aliens with non-human intelligence might well bollix the works. This situa-

tion may actually develop in future books of the Foundation series, but so far I have stayed clear of non-human intelligences in my Galactic Empire (partly because Campbell and I disagreed fundamentally on what their role would be if they existed and since neither of us would give in—).

Eventually, I thought that my psychohistory would fade out of human consciousness because the term came to be used by psychiatrists for the study of the psychiatric background of *individuals* (such as Woodrow Wilson, Sigmund Freud, or Adolf Hitler) who had some pronounced effect on history. Naturally, since I felt a proprietary interest in the term psychohistory as a predictive study of large faceless masses of human beings, I resented the new use of the word.

But then as time went on, I grew more philosophical. After all, it might well be that there could be no analogy drawn between molecules and human beings and that there could be no way of predicting human behavior. As mathematicians began to be interested in the details of what is now called "chaos," it seemed to me that human history might prove to be essentially "chaotic" so that there could be no psychohistory. Indeed, the question of whether psychohistory can be worked out or not lies at the center of the novel I have recently completed, *Prelude to Foundation*, in which Hari Seldon (the founder of psychohistory) is portrayed as a



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young man who is in the process of trying to devise the science.

Imagine, then, how exciting it is for me to see that scientists are increasingly interested in my psychohistory, even though they may not be aware that that's what the study is called and may never have read any of my Foundation novels, and thus may not know of my involvement. (Who cares? The concept is more important than I am.)

Some months ago, a reader, Tom Wilsdon of Arden, North Carolina, sent me a clipping from the April 23, 1987, issue of *Machine Design*. It reads as follows, in full:

"A computer model originally intended to simulate liquid turbulence has been used to model group behavior. Researchers at Los Alamos National Laboratories have found that there is a similarity between group behavior and certain physical phenomena. To do the analysis, they assigned certain physical characteristics such as level of excitement, fear, and size of the crowd to model parameters. The interaction of the crowd closely paralleled the turbulent flow equations. Although the analysis cannot predict exactly what a group will do, it reportedly does help determine the most probable consequence of a given event."

Then, too, Roger N. Shepard, a professor of psychology at Stanford University, has published an article in the 11 September 1987 issue of *Science* entitled "Toward a Universal Law of Generalization for Psychological Science."

Unfortunately, although I made a valiant effort to read it, the mathematics was too tough for me and even the non-mathematical portions produced only a rather dim and hazy understanding within me. However, here is the summary of the article as given at the beginning:

"A psychological space is established for any set of stimuli by determining metric distances between the stimuli such that the probability that a response learned to any stimulus will generalize to any other is an invariant monotonic function of the distance between them. To a good approximation, this probability of generalization (i) decays exponentially with this distance, and (ii) does so in accordance with one of two metrics, depending on the relation between the dimensions along with the stimuli vary. These empirical regularities are mathematically derivable from universal principles of natural kinds and probabilistic geometry that may, through evolutionary internalization, tend to govern the behaviors of all sentient organisms."

As I said, I don't really understand this but I have the feeling that Hari Seldon would understand it without trouble. I am also concerned, suddenly, that psychohistory may be developed within the next century. I placed its development 20,000 years in the future. Is this going to be another case of my science fictional imagination falling ludicrously short? ●

# LETTERS

Dr. Asimov:

"I have never had a novel or a story converted into a television play." So you say in the first sentence of *Harlan Ellison's I, Robot* (IASfm, November 1987).

In the early eighties, when I lived in Pittsburgh, I had the pleasure of watching a production of *The Ugly Little Boy* on Home Box Office. I believe it was a Canadian production. Forgive me if I don't remember any of the details, such as who produced it, who directed it, or who starred, but I do remember the story, and I enjoyed it very much.

Most sincerely,

Kevin Bold  
Hawthorne, CA

PS: Thank you for the reply to my letter about your views on "Star Wars." The little card makes a great bookmarker when I read about SDI—K.B.

*Yes, that's true, I saw that production of The Ugly Little Boy. It was a non-commercial film made by a Canadian company for use in schools. They also made All the Troubles in the World, sticking very close to my story and making the ending heartstoppingly effective. I liked that even better than The Ugly Little Boy. But, of course,*

*when I denied ever having been TV'd or movie'd, I meant commercially, Hollywoodily, on all the screens.*

—Isaac Asimov

To: Dr. Asimov

I am writing this letter because I figured it may be the fastest and easiest way for me to have my question answered. Correct me if I am wrong.

I have just completed the November 1987 issue of *IASfm*. I have been subscribing for about two years now and enjoy this magazine extremely. In fact, I devour most anything of the Science Fiction/Fantasy nature.

Now, to my question. The November issue contains the first installment of *I, Robot: The Movie*. While I don't usually enjoy reading stories written in this form, the story plot caught my eye and I will be awaiting my next issue (Pray the label doesn't fall off).

However, I would like to know where I may be most likely to purchase your book by this title. While the screenplay is interesting, it necessarily leaves out much of what I like most about reading: the details. Also, the format is distracting to me.

I would really like to feast on the

original format, if possible. Any help you may be able to give would be most appreciated.

Sincerely,

Barbara J. Pierce  
2507 Lancaster  
Pasadena, Texas 77506

*A Ballantine Books edition of I, Robot was published in 1983, and should be available in paperback stores. Honesty compels me to warn you, however, that the screenplay is quite different from the book itself although it incorporates elements of the book. Of course the book is good in its own way.*

—Isaac Asimov

Dear Mr. Dozois;

In his many editorials, the Good Doctor has often said that it is good fiction coupled with good science that makes for good science fiction. However, when reporting on fact, even when the "fact" is a review of science fiction, the facts must always be true. With this in mind, I refer you to Norman Spinrad's "On Books: Dreams of Space" in the October 1987 issue. He says: "For while science fiction never did predict the details of Project Apollo . . ." In fact, Arthur Clarke wrote "Prelude to Space" in 1947 and reprinted it in 1984 as part of "Prelude to Mars," which fairly accurately predicts all the essentials of the Apollo Project.

Dr. Asimov has issued two admonitions. (1) Be sure of your facts when the situation demands it and (2) read as much science fiction as you can to know how it is done.

Actually, I'm proud that this is the first real error that I have

found in your terrific magazine. Keep up the good work. I forgive you but you owe one to Arthur.

Charles Dabrush  
Suffern, NY

*"Details" is a difficult word to deal with. Even when you get details right there are always some details you miss. Lester del Rey once wrote a story in which he had the first man to reach the Moon named Armstrong. When he pointed this out to me vaingloriously, what could I do but sneer and say, "You got the first name wrong, Lester."*

—Isaac Asimov

Dr. Asimov and Mr. Dozois:

Thank you for printing Harlan Ellison's screenplay of *I, Robot!* As yet I haven't finished the first part, but would like to employ an over-used word to describe it: BRILLIANT. My only disappointment is that I have to wait two months to read the entire script.

(Can one hope that such publication could convince a few of the creatively responsible people in film to produce the screenplay?)

I was amazed to find myself crying when Robbie saved Susan. I did so when I first read the original story (seventh grade—during history). But to feel the same intense emotion at twenty-three surprised me.

If we cannot have the movie then Ellison's masterful screenplay will have to do, and it is indeed a heady substitute.

David-Michael Allen  
Cheyenne, WY

*I have always felt that the non-*

*conversion of Harlan's screenplay into a movie is a greater loss to the world than it is to Harlan. In fact, it is a greater loss to me than it is to Harlan.*

—Isaac Asimov

Dear Dr. Asimov:

*Re "Heroics" in the November 1987 issue of IAsfm: This was—is—an incredibly good story. Very slickly (no put-down; pure compliment) written, but—*

*—But where is the everlovin' science fiction or fantasy element in this tale? Where (unless after two careful readings I inadvertantly overlooked such) is there even a hint of SF or fantasy?*

*I've been reading both SF and fantasy for more years than I care to admit, and have been writing both full time for the past three years . . . so I think I can recognize SF and/or fantasy when I see it. I also read extensively outside these, my favorite, genres and I appreciate a good story, no matter what its category might be. But Lordy, Lordy, Good Doctor Asimov, James Patrick Kelly's "Heroics" just ain't SF/fantasy. Or is it? Now you've got me wondering. Maybe I'll read it again, just to give you the benefit of the doubt—and because it is such a damn-fine story!*

Bobby G. Warner  
Wedgfield, SC

*I'm afraid that the editorial view was that precognitive dreaming represented an element of fantasy. We are conservative enough (in the scientific sense) to refuse to believe such a thing exists in fact.*

—Isaac Asimov

Dear Sir or Madam:

Ever since I was able to read and understand what I was reading my dreams and boyhood fantasies were sparked by magazines that dared the imagination.

I can remember with delight sitting on the ground leaning against the wooden magazine stand with a can of pop in one hand and a science-fiction magazine or comic book in the other. Many an afternoon I passed with fantastic worlds at my fingertips.

But as time passed and the burdens of society were slowly lowered onto my shoulders my fingertips had to grasp other more tangible things. Finding time to go back to my boyhood hobbies soon became harder and harder until only the memory remained. I still, however, read, and my favorite escape from it all is a good book, but the science-fiction type stories that appeared in magazines slipped into my memory along with the years.

While searching for some new books in a bookstore the other day, I happened upon your magazine. Out of utter curiosity I'd gone over to the magazine stand and began looking for some of the old familiar names.

My attention was immediately captured by the name *Asimov* printed on your magazine. Imagine my surprise! I never knew that my favorite author had a magazine published with his name.

Needless to say I bought the issue and I love every page. You have a new lifetime subscriber. I want to thank you for the excellent literature—it's been so long since I've seen anything so good—and thank you for helping me to recapture a

little piece of the innocence I call my childhood. It's very refreshing in the world today to have something such as *Asimov's* that can recall childhood memories, be filled with excellent literature from cover to cover, and be worthy enough so that the children of today will have something to remember and to base their dreams upon.

Sincerely,

Jay Groe  
Minneapolis, MN

*Well, there you are, we rejuvenate; we make you young again. No wonder they put my name on the magazine. After all, it's well known that no matter how the years pass, I remain in my late youth. It just gets later and later, that's all.*

—Isaac Asimov

Dear fellow science fiction readers:

I have lately become aware of an annoying trend in the video supermarkets of our society, and I wonder if it bothers anyone but me. I am referring to the lumping of two albeit related, but quite different film genera: "Horror/Science Fiction." On each foray to the video store I find myself wading through gallons of blood and gore, pushing aside *I Eat Your Face*, *I Drink Your Blood* in a desperate search for *Soylent Green*, or *THX-1138*.

Now granted, some science fiction films have distinct elements of horror and vice versa, and in the case of something like *Alien* or *Invasion of the Body Snatchers*, the choice between the two categories may be a purely arbitrary one. But equally, there are some films firmly placed on their respective shelves,

and both types of films deserve their own listings.

Despite the unquestionable educational value of poring over titles (prior to my most recent video visit I didn't even realize one could PUT *Three on a Meathook*), I must ask for a separation of powers in the case of horror and science fiction movies.

Are you listening, O video mag-nates?

Sincerely,

Beth Hussey  
Columbia, MO

*I'm afraid there's nothing to be done. I once wrote a novel (The Gods Themselves) which was built about a quotation from the German dramatist, Schiller—"Against stupidity, the gods themselves contend in vain."*

—Isaac Asimov

Greetings;

I read with quite a bit of interest Norman Spinrad's article ("Dreams of Space," October 1987) about space colonies.

A major problem with spinning colonies to provide centrifugal "gravity" is that the colony must support also a considerable mass of shielding material to provide protection against cosmic radiation and solar flares. This turns out to be the major part of the mass of a colony.

A spinning colony would produce many unusual kinesthetic effects. For example, just turning around would give a person the somewhat queasy sensation that one was tumbling head-over-heels. From the studies I've seen, life in a spinning station should be comfortable even

to normal Earth dwellers if the spin rate is less than about one revolution per minute. For a full Earth gravity to be produced, a spin rate this low would require a station almost two kilometers across; the size becomes proportionately less if only partial gravity is needed. Of course, it is not at all clear that people wouldn't quickly get used to living in a spinning environment, and find living at much larger rates of spin perfectly acceptable (but have trouble when taking a trip to Earth).

Given present-day materials, neither the spinning cylinder of O'Neill nor the wagon-wheel of Von Braun *et al.* is the optimum configuration for a colony. Since you get the greatest gravity for the least spin by increasing the spin radius, the best way to build a colony would be to put it on the end of a many-kilometer long cable (or more likely several long cables, to minimize the effect of any single strand breaking). At the other end of the cable you could put as counterweight either a large rock (such as a clump of slag mined from the moon or asteroids) or another colony.

I've also thought that the frequently seen artists' conceptions of spacious, pastoral space colonies are rather naive. Building a space

colony would be an enormously expensive undertaking; and "land" area in such a colony would be considerably more expensive than, say, an equivalent area in downtown Manhattan. On the other hand, I would also not expect a large space colony to be as cramped as a submarine. My guess as to what a space colony would feel like? Check out your local fully-enclosed shopping mall. Or, perhaps, a large hotel with a central atrium, like many of the Hyatt Regencies. In both cases, clever architects have designed structures with maximum use of space, but a sense of openness and freedom. Now if we can just take one of these hotels, toss it into orbit, and then spin it on the end of a long cable. . . .

Yours,

Geoffrey A. Landis, Ph.D.  
Providence, RI

*I like what you say and, as a matter of fact, I wish I had been able to visualize today's fully-equipped shopping malls forty years ago so that I could have had a better mind-picture of my world-city of Trantor. However, all is not lost. Trantor pervades my new novel Prelude to Foundation (which may be out by the time this appears) and this time I know about shopping malls.*

—Isaac Asimov

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# 1987 SCIENCE FICTION GAMES OF THE YEAR

by Matthew J. Costello

The gaming columns of the two magazines have been running for nearly six years, and I have, to date, filed forty-four columns for each magazine. It's been an intense scrutiny of the game world, one that I continue to enjoy.

But with so many games being looked at, played, and then stored in my attic, it seemed like time to single out games of unusual merit. The number of awards was not set, but the criteria were pretty clear—e.g., that the games represented what a game should be.

From an initial list of over two hundred games or so (some found in the honorable mention list at the end of this report), eight were selected after many evenings of group play testing and full days comparing the winners.

The 1987 Gaming Awards winners in alphabetical order, if you please, represent today's state-of-the-art . . .

*Aliens* (**Activision**, Drawer 7207, Mountain View, CA 94039) had a lot to live up to. The film was a breathtaking roller-coaster of SF/horror, with a smidgeon of Heinlein's *Starship Troopers*. The computer game makes good on the challenges, with a series of sequences that capture the highlights of the film . . . landing on the planet, teams separating and meeting the aliens, Ripley searching for Newt, all leading up to hand-to-hand combat with the mother alien. Great gameplay, and exciting, animated graphics worthy of the subject.

*Cathedral* (**Mattel Toys Inc.**, 5150 Rosecrans Avenue, Hawthorne, CA 90250). The rules can be learned in five minutes. Basically, players take turns placing irregularly shaped medieval buildings on a square board, trying to control space and encircle an opponent's lone pieces. But the subtlety of the game comes from its affinity to the classic game of Go. It's tremendously appealing to play, with wonderful playing pieces.

*Defender of the Crown* (**Cinemaware**, 4165 Thousand Oaks Blvd., West Lake Village, CA 91362) caused quite a stir when first released. For the first time a computer game seemed to actually care what it looked like. The graphics were, in a word, stunning. *Defender* offered a medieval world of jousts, raids, and swash-buckling swordplay beautifully brought to life. More than any other game in recent years, it has pointed the way to the future.

*Dungeonquest* (**Games Workshop**, U.S., 8920 A Rt.108, Columbia, MD 21045) shows that old dogs can be taught new tricks. The Swedish company Brio took the time-honored game of dungeon crawling and loot gathering and added enough bells and whistles (game slang = "new ideas") to make the most jaded dragonslayer take notice. With a clever combat system, and over seven decks of cards, the game is always fresh and exciting.



**Maniac Mansion** (Lucasfilms Games, PO Box 2009, San Rafael, CA 94912). Okay, so it doesn't sound like the most profound game title. But this computer game, with its mysterious comet, mad scientist, and group of curious teenagers, is one of the most enjoyable games of the year. Players can control up to three of the teenagers (you'll need one of each stereotype), and the game keeps the action moving by "meanwhile" sequences that are straight out of your favorite B-Movie. Completely joystick controlled, it's a wonderful adventure game after a hard day hitting the word processor.

**Solarquest** (Western Publishing, 1220 Mount Ave., Racine, Wis 53404) shows that a board game doesn't have to have ties or deal with combat, to be successful. Essentially *Monopoly* in space, the game succeeds in tuning interplanetary wheeling and dealing into a very entertaining (if unrealistic) game. This one, as they say on TV, is for the whole family.

**Shogun** (Milton Bradley Co., 1500 Main St., Springfield, Mass. 01101) is a masterpiece. With a surprisingly intricate rule book for a mass-market game, in play, it is exceedingly smooth. Players struggle over feudal Japan with plastic armies of samurai, ronin, and, of course, ninja. Much care was given to the art, and the rules provide for just the right mixture of strategy and duplicity.

**Traveller:2300** (Game Designers Workshop, PO Box 1646, Bloomington, IL 61701) is almost a daring role-playing game. These days, role-playing seems a field filled with licenses and quirky appeals to a narrow audience. *Traveller:2300*, on the other hand, sets out to present state-of-the-art interstellar role-playing. With finesse, polish, and a mind-blowing star chart, the game succeeds admirably.

Eight games, very different with some commonalities. First, the board games are concerned with the physical nature of things. The games look good, and play even better. In an age when computer games can handle dice rolling, number crunching, and a host of other game activities, boardgames should offer the physical pleasure of playing with a game.

The three computer games all attempt to stretch the game play and look of the computer game. Games that follow these three will not look the same.

Now, some honorable mentions . . . all of these games are well worth your time playing.

**Interceptor**, a Star Wars type boardgame with an absolutely remarkable spaceship damage system, from FASA.

**The Legend of Zelda**, a role-playing game for the Nintendo system. A phenomenal success . . .

**Pirates**, an atmospheric adventure game from Microprose, set on the Spanish Main.

**The Sentry**, a Firebird Computer Game from the U.K. Hundreds of alien landscapes, all of them guarded by an extremely diligent robot.

**Star Flight**, the most comprehensive computer game of deep space so far, from Electronic Arts.

**Wizardry**, a classic role-playing computer game, from Sir Tech.

# GAMING

by Matthew J. Costello

It's always been my contention that the ultimate recreational role of the computer won't be in the field of games. Not that games will disappear. No, it's just that the computer can do other . . . more interesting things than merely play games.

Firebird's *Advanced Art Studio* (Firebird Licenses Inc., PO Box 49, Ramsey, New Jersey 07446) is an excellent example of just what I'm talking about. It is nothing less than a full-scale art studio on disk, offering a variety of mediums, special effects, and techniques. You can, for example, paint, using a broad brush, or the micro-dots of a pointillist, or even a spray can. The program lets you select the color of ink, paper, and border.

Coloring in your oeuvre is easy, and the program lets you select from such options as a "solid fill," "pattern fill," or a "wash." Twelve different patterns are provided, ranging from a brick effect to something that resembles a herringbone tweed jacket I once wore.

But this only scratches the surface of the *Art Studio*. You can design your own patterns using the pattern editor, you can integrate

text into the picture, and you can magnify your drawing up to eight times.

So what do you do with this?

Play with it. It is, despite a horrible instruction book, incredibly easy to use. While a fine artist could no doubt use it to create some stunning graphics, for the rest of us the *Art Studio* is a finger-paint set for adults.

*Instant Music* (Electronic Arts, 1820 Gateway Drive, San Mateo, CA 94404) lives up to its name. Once you have the program loaded you will be able to play music quickly, if not instantly.

The screen display clearly gives you a feel for what the music synthesizer program can do. Most of the screen is devoted to a score, where you can place notes. All of the controls for the synthesizer can be accessed by the joystick. You can set the tempo, build a chord, and select the volume for the instruments currently in use.

Near the bottom of the screen the instruments set to play are displayed, and you can change to any combination of instruments that

(Continued on page 191)

# At last, the beginning

Isaac Asimov, the creator of the classic *Foundation Series*, now goes back to when it all began and presents this brilliant overture to the best-selling sf saga of all time. Follow the footsteps of Hari Seldon, Father of the Foundation, as he sets in motion the irresistible forces of psychohistory and shapes the destiny of the galaxy for millenia to come.

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# THE LAST OF THE WINNEBAGOS

by Connie Willis



The author is presently a finalist for the 1987 Nebula for Best Novelette. She tells us she's working on a novel which is related to her Hugo- and Nebula-award winning novelette, "Fire Watch" (February 1982), but unlike the original story, which took place in London during the Blitz, the novel will be set in the midst of the Plague.

art: Laura Lakey



On the way out to Tempe I saw a dead jackal in the road. I was in the far left lane of Van Buren, ten lanes away from it, and its long legs were facing away from me, the squarish muzzle flat against the pavement so it looked narrower than it really was, and for a minute I thought it was a dog.

I had not seen an animal in the road like that for fifteen years. They can't get onto the divideds, of course, and most of the multiways are fenced. And people are more careful of their animals.

The jackal was probably somebody's pet. This part of Phoenix was mostly residential, and after all this time, people still think they can turn the nasty, carrion-loving creatures into pets. Which was no reason to have hit it and, worse, left it there. It's a felony to strike an animal and another one to not report it, but whoever had hit it was long gone.

I pulled the Hitori over onto the center shoulder and sat there awhile, staring at the empty multiway. I wondered who had hit it and whether they had stopped to see if it was dead.

Katie had stopped. She had hit the brakes so hard she sent the car into a skid that brought it up against the ditch, and jumped out of the jeep. I was still running toward him, floundering in the snow. We made it to him almost at the same time. I knelt beside him, the camera dangling from my neck, its broken case hanging half open.

"I hit him," Katie had said. "I hit him with the jeep."

I looked in the rearview mirror. I couldn't even see over the pile of camera equipment in the back seat with the eisenstadt balanced on top. I got out. I had come nearly a mile, and looking back, I couldn't see the jackal, though I knew now that's what it was.

"McCombe! David! Are you there yet?" Ramirez's voice said from inside the car.

I leaned in. "No," I shouted in the general direction of the phone's mike. "I'm still on the multiway."

"Mother of God, what's taking you so long? The governor's conference is at twelve, and I want you to go out to Scottsdale and do a layout on the closing of Taliessin West. The appointment's for ten. Listen, McCombe, I got the poop on the Amblers for you. They bill themselves as 'One Hundred Percent Authentic,' but they're not. Their RV isn't really a Winnebago, it's an Open Road. It *is* the last RV on the road, though, according to Highway Patrol. A man named Eldridge was touring with one, also *not* a Winnebago, a Shasta, until March, but he lost his license in Oklahoma for using a tanker lane, so this is it. Recreation vehicles are banned in all but four states. Texas has legislation in committee, and Utah has a full-divided bill coming up next month. Arizona will be next, so take lots of pictures, Davey boy. This may be your last chance. And get some of the zoo."

"What about the Amblers?" I said.

"Their name *is* Ambler, believe it or not. I ran a lifeline on them. He was a welder. She was a bank teller. No kids. They've been doing this since eighty-nine when he retired. Nineteen years. David, are you using the eisenstadt?"

We had been through this the last three times I'd been on a shoot. "I'm not *there* yet," I said.

"Well, I want you to use it at the governor's conference. Set it on his desk if you can."

I intended to set it on a desk, all right. One of the desks at the back, and let it get some nice shots of the rear ends of reporters as they reached wildly for a little clear air-space to shoot their pictures in, some of them holding their vidcams in their upstretched arms and aiming them in what they hope is the right direction because they can't see the governor at all, let it get a nice shot of one of the reporter's arms as he knocked it face-down on the desk.

"This one's a new model. It's got a trigger. It's set for faces, full-lengths, and vehicles."

So great. I come home with a hundred-frame cartridge full of passersby and tricycles. How the hell did it know when to click the shutter or which one the governor was in a press conference of eight hundred people, full-length or face? It was supposed to have all kinds of fancy light-metrics and computer-composition features, but all it could really do was mindlessly snap whatever passed in front of its idiot lens, just like the highway speed cameras.

It had probably been designed by the same government types who'd put the highway cameras along the road instead of overhead so that all it takes is a little speed to reduce the new side-license plates to a blur, and people go faster than ever. A great camera, the eisenstadt. I could hardly wait to use it.

"Sun-co's very interested in the eisenstadt," Ramirez said. She didn't say goodbye. She never does. She just stops talking and then starts up again later. I looked back in the direction of the jackal.

The multiway was completely deserted. New cars and singles don't use the undivided multiways much, even during rush hours. Too many of the little cars have been squashed by tankers. Usually there are at least a few obsoletes and renegade semis taking advantage of the Patrol's being on the dividedds, but there wasn't anybody at all.

I got back in the car and backed up even with the jackal. I turned off the ignition but didn't get out. I could see the trickle of blood from its mouth from here. A tanker went roaring past out of nowhere, trying to beat the cameras, straddling the three middle lanes and crushing the

jackal's rear half to a bloody mush. It was a good thing I hadn't been trying to cross the road. He never would have even seen me.

I started the car and drove to the nearest off-ramp to find a phone. There was one at an old 7-Eleven on McDowell.

"I'm calling to report a dead animal on the road," I told the woman who answered the Society's phone.

"Name and number?"

"It's a jackal," I said. "It's between Thirtieth and Thirty-Second on Van Buren. It's in the far right lane."

"Did you render emergency assistance?"

"There was no assistance to be rendered. It was dead."

"Did you move the animal to the side of the road?"

"No."

"Why not?" she said, her tone suddenly sharper, more alert.

Because I thought it was a dog. "I didn't have a shovel," I said, and hung up.

I got out to Tempe by eight-thirty, in spite of the fact that every tanker in the state suddenly decided to take Van Buren. I got pushed out onto the shoulder and drove on that most of the way.

The Winnebago was set up in the fairgrounds between Phoenix and Tempe, next to the old zoo. The flyer had said they would be open from nine to nine, and I had wanted to get most of my pictures before they opened, but it was already a quarter to nine, and even if there were no cars in the dusty parking lot, I was probably too late.

It's a tough job being a photographer. The minute most people see a camera, their real faces close like a shutter in too much light, and all that's left is their camera face, their public face. It's a smiling face, except in the case of Saudi terrorists or senators, but, smiling or not, it shows no real emotion. Actors, politicians, people who have their pictures taken all the time are the worst. The longer the person's been in the public eye, the easier it is for me to get great vidcam footage and the harder it is to get anything approaching a real photograph, and the Amblers had been at this for nearly twenty years. By a quarter to nine they would already have their camera faces on.

I parked down at the foot of the hill next to the clump of ocotillas and yucca where the zoo sign had been, pulled my Nikon longshot out of the mess in the back seat, and took some shots of the sign they'd set up by the multiway: "See a Genuine Winnebago. One Hundred Percent Authentic."

The Genuine Winnebago was parked longways against the stone banks of cacti and palms at the front of the zoo. Ramirez had said it wasn't a real Winnebago, but it had the identifying W with its extending stripes



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running the length of the RV, and it seemed to me to be the right shape, though I hadn't seen one in at least ten years.

I was probably the wrong person for this story. I had never had any great love for RV's, and my first thought when Ramirez called with the assignment was that there are some things that should be extinct, like mosquitoes and lane dividers, and RV's are right at the top of the list. They had been everywhere in the mountains when I'd lived in Colorado, crawling along in the left-hand lane, taking up two lanes even in the days when a lane was fifteen feet wide, with a train of cursing cars behind them.

I'd been behind one on Independence Pass that had stopped cold while a ten-year-old got out to take pictures of the scenery with an Instamatic, and one of them had tried to take the curve in front of my house and ended up in my ditch, looking like a beached whale. But that was always a bad curve.

An old man in an ironed short-sleeved shirt came out the side door and around to the front end and began washing the Winnebago with a sponge and a bucket. I wondered where he had gotten the water. According to Ramirez's advance work, which she'd sent me over the modem about the Winnebago, it had maybe a fifty-gallon water tank, tops, which is barely enough for drinking water, a shower, and maybe washing a dish or two, and there certainly weren't any hookups here at the zoo, but he was swilling water onto the front bumper and even over the tires as if he had more than enough.

I took a few shots of the RV standing in the huge expanse of parking lot and then hit the longshot to full for a picture of the old man working on the bumper. He had large reddish-brown freckles on his arms and the top of his bald head, and he scrubbed away at the bumper with a vengeance. After a minute he stopped and stepped back, and then called to his wife. He looked worried, or maybe just crabby. I was too far away to tell if he had snapped out her name impatiently or simply called her to come and look, and I couldn't see his face. She opened the metal side door, with its narrow louvered window, and stepped down onto the metal step.

The old man asked her something, and she, still standing on the step, looked out toward the multiway and shook her head, and then came around to the front, wiping her hands on a dishtowel, and they both stood there looking at his handiwork.

They were One Hundred Percent Authentic, even if the Winnebago wasn't, down to her flowered blouse and polyester slacks, probably also one hundred percent, and the cross-stitched rooster on the dishtowel. She had on brown leather slip-ons like I remembered my grandmother wearing, and I was willing to bet she had set her thinning white hair on

bobby pins. Their bio said they were in their eighties, but I would have put them in their nineties, although I wondered if they were too perfect and therefore fake, like the Winnebago. But she went on wiping her hands on the dishtowel the way my grandmother had when she was upset, even though I couldn't see if her face was showing any emotion, and that action at least was authentic.

She apparently told him the bumper looked fine because he dropped the dripping sponge into the bucket and went around behind the Winnebago. She went back inside, shutting the metal door behind her even though it had to be already at least a hundred and ten out, and they hadn't even bothered to park under what scanty shade the palms provided.

I put the longshot back in the car. The old man came around the front with a big plywood sign. He propped it against the vehicle's side. "The Last of the Winnebagos," the sign read in somebody's idea of what Indian writing should look like. "See a vanishing breed. Admission—Adults—\$8.00, Children under twelve—\$5.00 Open 9 A.M. to Sunset." He strung up a row of red and yellow flags, and then picked up the bucket and started toward the door, but halfway there he stopped and took a few steps down the parking lot to where I thought he probably had a good view of the road, and then went back, walking like an old man, and took another swipe at the bumper with the sponge.

"Are you done with the RV yet, McCombe?" Ramirez said on the car phone.

I slung the camera into the back. "I just got here. Every tanker in Arizona was on Van Buren this morning. Why the hell don't you have me do a piece on abuses of the multiway system by water-haulers?"

"Because I want you to get to Tempe alive. The governor's press conference has been moved to one, so you're okay. Have you used the eisenstadt yet?"

"I told you, I just got here. I haven't even turned the damned thing on."

"You don't turn it on. It self-activates when you set it bottom down on a level surface."

Great. It had probably already shot its 100-frame cartridge on the way here.

"Well, if you don't use it on the Winnebago, make sure you use it at the governor's conference," she said. "By the way, have you thought any more about moving to investigative?"

That was why Sun-co was really so interested in the eisenstadt. It had been easier to send a photographer who could write stories than it had to send a photographer and a reporter, especially in the little one-seater Hitoris they were ordering now, which was how I got to be a photo-

journalist. And since that had worked out so well, why send either? Send an eisenstadt and a DAT deck and you won't need an Hitori and way-mile credits to get them there. You can send them through the mail. They can sit unnoticed on the old governor's desk, and after a while somebody in a one-seater who wouldn't have to be either a photographer or a reporter can sneak in to retrieve them and a dozen others.

"No," I said, glancing back up the hill. The old man gave one last swipe to the front bumper and then walked over to one of the zoo's old stone-edged planters and dumped the bucket in on a tangle of prickly pear, which would probably think it was a spring shower and bloom before I made it up the hill. "Look, if I'm going to get any pictures before the touristas arrive, I'd better go."

"I wish you'd think about it. And use the eisenstadt this time. You'll like it once you try it. Even *you'll* forget it's a camera."

"I'll bet," I said. I looked back down the multiway. Nobody at all was coming now. Maybe that was what all the Ambler's anxiety was about—I should have asked Ramirez what their average daily attendance was and what sort of people used up credits to come this far out and see an old beat-up RV. The curve into Tempe alone was three point two miles. Maybe nobody came at all. If that was the case, I might have a chance of getting some decent pictures. I got in the Hitori and drove up the steep drive.

"Howdy," the old man said, all smiles, holding out his reddish-brown freckled hand to shake mine. "Name's Jake Ambler. And this here's Winnie," he said, patting the metal side of the RV, "Last of the Winnebagos. Is there just the one of you?"

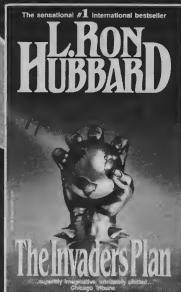
"David McCombe," I said, holding out my press pass. "I'm a photographer. Sun-co. Phoenix *Sun*, Tempe-Mesa *Tribune*, Glendale *Star*, and affiliated stations. I was wondering if I could take some pictures of your vehicle?" I touched my pocket and turned the taper on.

"You bet. We've always cooperated with the media, Mrs. Ambler and me. I was just cleaning old Winnie up," he said. "She got pretty dusty on the way down from Globe." He didn't make any attempt to tell his wife I was there, even though she could hardly avoid hearing us, and she didn't open the metal door again. "We been on the road now with Winnie for almost twenty years. Bought her in 1989 in Forest City, Iowa, where they were made. The wife didn't want to buy her, didn't know if she'd like traveling, but now she's the one wouldn't part with it."

He was well into his spiel now, an open, friendly, I-have-nothing-to-hide expression on his face that hid everything. There was no point in taking any stills, so I got out the vidcam and shot the TV footage while he led me around the RV.

"This up here," he said, standing with one foot on the flimsy metal

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ladder and patting the metal bar around the top, "is the luggage rack, and this is the holding tank. It'll hold thirty gallons and has an automatic electric pump that hooks up to any waste hookup. Empties in five minutes, and you don't even get your hands dirty." He held up his fat pink hands palms forward as if to show me. "Water tank," he said, slapping a silver metal tank next to it. "Holds forty gallons, which is plenty for just the two of us. Interior space is a hundred fifty cubic feet with six feet four of headroom. That's plenty even for a tall guy like yourself."

He gave me the whole tour. His manner was easy, just short of slap-on-the-back hearty, but he looked relieved when an ancient VW bug came chugging catty-cornered up through the parking lot. He must have thought they wouldn't have any customers either.

A family piled out, Japanese tourists, a woman with short black hair, a man in shorts, two kids. One of the kids had a ferret on a leash.

"I'll just look around while you tend to the paying customers," I told him.

I locked the vidcam in the car, took the longshot, and went up toward the zoo. I took a wide-angle of the zoo sign for Ramirez. I could see it now—she'd run a caption like, "The old zoo stands empty today. No sound of lion's roar, of elephant's trumpeting, of children's laughter, can be heard here. The old Phoenix Zoo, last of its kind, while just outside its gates stands yet another last of its kind. Story on page 10." Maybe it would be a good idea to let the eisenstadts and the computers take over.

I went inside. I hadn't been out here in years. In the late eighties there had been a big flap over zoo policy. I had taken the pictures, but I hadn't covered the story since there were still such things as reporters back then. I had photographed the cages in question and the new zoo director who had caused all the flap by stopping the zoo's renovation project cold and giving the money to a wildlife protection group.

"I refuse to spend money on cages when in a few years we'll have nothing to put in them. The timber wolf, the California condor, the grizzly bear, are in imminent danger of becoming extinct, and it's our responsibility to save them, not make a comfortable prison for the last survivors."

The Society had called him an alarmist, which just goes to show you how much things can change. Well, he was an alarmist, wasn't he? The grizzly bear isn't extinct in the wild—it's Colorado's biggest tourist draw, and there are so many whooping cranes Texas is talking about limited hunting.

In all the uproar, the zoo had ceased to exist, and the animals all went to an even more comfortable prison in Sun City—sixteen acres of savannah land for the zebras and lions, and snow manufactured daily for the polar bears.

They hadn't really been cages, in spite of what the zoo director said. The old capybara enclosure, which was the first thing inside the gate, was a nice little meadow with a low stone wall around it. A family of prairie dogs had taken up residence in the middle of it.

I went back to the gate and looked down at the Winnebago. The family circled the Winnebago, the man bending down to look underneath the body. One of the kids was hanging off the ladder at the back of the RV. The ferret was nosing around the front wheel Jake Ambler had so carefully scrubbed down, looking like it was about ready to lift its leg, if ferrets do that. The kid yanked on its leash and then picked it up in his arms. The mother said something to him. Her nose was sunburned.

Katie's nose had been sunburned. She had had that white cream on it, that skiers used to use. She was wearing a parka and jeans and bulky pink-and-white moonboots that she couldn't run in, but she still made it to Aberfan before I did. I pushed past her and knelt over him.

"I hit him," she said bewilderedly. "I hit a dog."

"Get back in the jeep, damn it!" I shouted at her. I stripped off my sweater and tried to wrap him in it. "We've got to get him to the vet."

"Is he dead?" Katie said, her face as pale as the cream on her nose.

"No!" I had shouted. "No, he isn't dead."

The mother turned and looked up toward the zoo, her hand shading her face. She caught sight of the camera, dropped her hand, and smiled, a toothy, impossible smile. People in the public eye are the worst, but even people having a snapshot taken close down somehow, and it isn't just the phony smile. It's as if that old superstition is true, and cameras do really steal the soul.

I pretended to take her picture and then lowered the camera. The zoo director had put up a row of tombstone-shaped signs in front of the gate, one for each endangered species. They were covered with plastic, which hadn't helped much. I wiped the streaky dust off the one in front of me. "Canis latrans," it said, with two green stars after it. "Coyote. North American wild dog. Due to large-scale poisoning by ranchers, who saw it as a threat to cattle and sheep, the coyote is nearly extinct in the wild." Underneath there was a photograph of a ragged coyote sitting on its haunches and an explanation of the stars. Blue—endangered species. Yellow—endangered habitat. Red—extinct in the wild.

After Misha died, I had come out here to photograph the dingo and the coyotes and the wolves, but they were already in the process of moving the zoo, so I couldn't get any pictures, and it probably wouldn't have done any good. The coyote in the picture had faded to a greenish-yellow and its yellow eyes were almost white, but it stared out of the picture looking as hearty and unconcerned as Jake Ambler, wearing its camera face.

The mother had gone back to the bug and was herding the kids inside.

Mr. Ambler walked the father back to the car, shaking his shining bald head, and the man talked some more, leaning on the open door, and then got in and drove off. I walked back down.

If he was bothered by the fact that they had only stayed ten minutes and that, as far as I had been able to see, no money had changed hands, it didn't show in his face. He led me around to the side of the RV and pointed to a chipped and faded collection of decals along the painted bar of the W. "These here are the states we've been in." He pointed to the one nearest the front. "Every state in the Union, plus Canada and Mexico. Last state we were in was Nevada."

Up this close it was easy to see where he had painted out the name of the original RV and covered it with the bar of red. The paint had the dull look of un-authenticity. He had covered up the "Open Road" with a burnt-wood plaque that read, "The Amblin' Amblers."

He pointed at a bumper sticker next to the door that said, "I got lucky in Vegas at Caesar's Palace," and had a picture of a naked showgirl. "We couldn't find a decal for Nevada. I don't think they make them anymore. And you know something else you can't find? Steering wheel covers. You know the kind. That keep the wheel from burning your hands when it gets hot?"

"Do you do all the driving?" I asked.

He hesitated before answering, and I wondered if one of them didn't have a license. I'd have to look it up in the lifeline. "Mrs. Ambler spells me sometimes, but I do most of it. Mrs. Ambler reads the map. Damn maps nowadays are so hard to read. Half the time you can't tell what kind of road it is. They don't make them like they used to."

We talked for a while more about all the things you couldn't find a decent one of anymore and the sad state things had gotten in generally, and then I announced I wanted to talk to Mrs. Ambler, got the vidcam and the eisenstadt out of the car, and went inside the Winnebago.

She still had the dishtowel in her hand, even though there couldn't possibly be space for that many dishes in the tiny RV. The inside was even smaller than I had thought it would be, low enough that I had to duck and so narrow I had to hold the Nikon close to my body to keep from hitting the lens on the passenger seat. It felt like an oven inside, and it was only nine o'clock in the morning.

I set the eisenstadt down on the kitchen counter, making sure its concealed lens was facing out. If it would work anywhere, it would be here. There was basically nowhere for Mrs. Ambler to go that she could get out of range. There was nowhere I could go either, and sorry, Ramirez, there are just some things a live photographer can do better than a preprogrammed one, like stay out of the picture.

"This is the galley," Mrs. Ambler said, folding her dishtowel and hang-



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ing it from a plastic ring on the cupboard below the sink with the cross-stitch design showing. It wasn't a rooster after all. It was a poodle wearing a sunbonnet and carrying a basket. "Shop on Wednesday," the motto underneath said.

"As you can see, we have a double sink with a hand-pump faucet. The refrigerator is LP-electric and holds four cubic feet. Back here is the dinette area. The table folds up into the rear wall, and we have our bed. And this is our bathroom."

She was as bad as her husband. "How long have you had the Winnebago?" I said to stop the spiel. Sometimes, if you can get people talking about something besides what they intended to talk about, you can disarm them into something like a natural expression.

"Nineteen years," she said, lifting up the lid of the chemical toilet. "We bought it in 1989. I didn't want to buy it—I didn't like the idea of selling our house and going gallivanting off like a couple of hippies, but Jake went ahead and bought it, and now I wouldn't trade it for anything. The shower operates on a forty-gallon pressurized water system." She stood back so I could get a picture of the shower stall, so narrow you wouldn't have to worry about dropping the soap. I dutifully took some vidcam footage.

"You live here full-time then?" I said, trying not to let my voice convey how impossible that prospect sounded. Ramirez had said they were from Minnesota. I had assumed they had a house there and only went on the road for part of the year.

"Jake says the great outdoors is our home," she said. I gave up trying to get a picture of her and snapped a few high-quality detail stills for the papers: the "Pilot" sign taped on the dashboard in front of the driver's seat, the crocheted granny-square afghan on the uncomfortable-looking couch, a row of salt-and-pepper shakers in the back windows—Indian children, black scottie dogs, ears of corn.

"Sometimes we live on the open prairies and sometimes on the seashore," she said. She went over to the sink and hand-pumped a scant two cups of water into a little pan and set it on the two-burner stove. She took down two turquoise melmac cups and flowered saucers and a jar of freeze-dried and spooned a little into the cups. "Last year we were in the Colorado Rockies. We can have a house on a lake or in the desert, and when we get tired of it, we just move on. Oh, my, the things we've seen."

I didn't believe her. Colorado had been one of the first states to ban recreational vehicles, even before the gas crunch and the multiways. It had banned them on the passes first and then shut them out of the national forests, and by the time I left they weren't even allowed on the interstates.

Ramirez had said RV's were banned outright in forty-seven states.

New Mexico was one, Utah had heavy restrictions, and daytime travel was forbidden in all the western states. Whatever they'd seen, and it sure wasn't Colorado, they had seen it in the dark or on some unpatrolled multiway, going like sixty to outrun the cameras. Not exactly the foot-loose and fancy-free life they tried to paint.

The water boiled. Mrs. Ambler poured it into the cups, spilling a little on the turquoise saucers. She blotted it up with the dishtowel. "We came down here because of the snow. They get winter so early in Colorado."

"I know," I said. It had snowed two feet, and it was only the middle of September. Nobody even had their snow tires on. The aspens hadn't turned yet, and some of the branches broke under the weight of the snow. Katie's nose was still sunburned from the summer.

"Where did you come from just now?" I asked her.

"Globe," she said, and opened the door to yell to her husband. "Jake! Coffee!" She carried the cups to the table-that-converts-into-a-bed. "It has leaves that you can put in it so it seats six," she said.

I sat down at the table so she was on the side where the eisenstadt could catch her. The sun was coming in through the cranked-open back windows, already hot. Mrs. Ambler got onto her knees on the plaid cushions and let down a woven cloth shade, carefully, so it wouldn't knock the salt and pepper shakers off.

There were some snapshots stuck up between the ceramic ears of corn. I picked one up. It was a square Polaroid from the days when you had to peel off the print and glue it to a stiff card: The two of them, looking exactly the way they did now, with that friendly, impenetrable camera smile, were standing in front of a blur of orange rock—the Grand Canyon? Zion? Monument Valley? Polaroid had always chosen color over definition. Mrs. Ambler was holding a little yellow blur in her arms that could have been a cat but wasn't. It was a dog.

"That's Jake and me at Devil's Tower," she said, taking the picture away from me. "And Taco. You can't tell from this picture, but she was the cutest little thing. A chihuahua." She handed it back to me and rummaged behind the salt and pepper shakers. "Sweetest little dog you ever saw. This will give you a better idea."

The picture she handed me was considerably better, a matte print done with a decent camera. Mrs. Ambler was holding the chihuahua in this one, too, standing in front of the Winnebago.

"She used to sit on the arm of Jake's chair while he drove and when we came to a red light she'd look at it, and when it turned green she'd bark to tell him to go. She was the smartest little thing."

I looked at the dog's flaring, pointed ears, its bulging eyes and rat's snout. The dogs never come through. I took dozens of pictures, there at the end, and they might as well have been calendar shots. Nothing of



the real dog at all. I decided it was the lack of muscles in their faces—they could not smile, in spite of what their owners claimed. It is the muscles in the face that make people leap across the years in pictures. The expressions on dogs' faces were what breeding had fastened on them—the gloomy bloodhound, the alert collie, the rakish mutt—and anything else was wishful thinking on the part of the dotting master, who would also swear that a color-blind chihuahua with a brain pan the size of a Mexican jumping bean could tell when the light changed.

My theory of the facial muscles doesn't really hold water, of course. Cats can't smile either, and they come through. Smugness, slyness, disdain—all of those expressions come through beautifully, and they don't have any muscles in their faces either, so maybe it's love that you can't capture in a picture because love was the only expression dogs were capable of.

I was still looking at the picture. "She is a cute little thing," I said and handed it back to her. "She wasn't very big, was she?"

"I could carry Taco in my jacket pocket. We didn't name her Taco. We got her from a man in California that named her that," she said, as if she could see herself that the dog didn't come through in the picture. As if, had she named the dog herself, it would have been different. Then the name would have been a more real name, and Taco would have, by default, become more real as well. As if a name could convey what the picture didn't—all the things the little dog did and was and meant to her.

Names don't do it either, of course. I had named Aberfan myself. The vet's assistant, when he heard it, typed it in as Abraham.

"Age?" he had said calmly, even though he had no business typing all this into a computer, he should have been in the operating room with the vet.

"You've got that in there, damn it," I shouted.

He looked calmly puzzled. "I don't know any Abraham . . ."

"Aberfan, damn it. Aberfan!"

"Here it is," the assistant said imperturbably.

Katie, standing across the desk, looked up from the screen. "He had the newparvo and lived through it?" she said bleakly.

"He had the newparvo and lived through it," I said, "until you came along."

"I had an Australian shepherd," I told Mrs. Ambler.

Jake came into the Winnebago, carrying the plastic bucket. "Well, it's about time," Mrs. Ambler said. "Your coffee's getting cold."

"I was just going to finish washing off Winnie," he said. He wedged the bucket into the tiny sink and began pumping vigorously with the

heel of his hand. "She got mighty dusty coming down through all that sand."

"I was telling Mr. McCombe here about Taco," she said, getting up and taking him the cup and saucer. "Here, drink your coffee before it gets cold."

"I'll be in in a minute," he said. He stopped pumping and tugged the bucket out of the sink.

"Mr. McCombe had a dog," she said, still holding the cup out to him. "He had an Australian shepherd. I was telling him about Taco."

"He's not interested in that," Jake said. They exchanged one of those warning looks that married couples are so good at. "Tell him about the Winnebago. That's what he's here for."

Jake went back outside. I screwed the longshot's lens cap on and put the vidcam back in its case. She took the little pan off the miniature stove and poured the coffee back into it. "I think I've got all the pictures I need," I said to her back.

She didn't turn around. "He never liked Taco. He wouldn't even let her sleep on the bed with us. Said it made his legs cramp. A little dog like that that didn't weigh anything."

I took the longshot's lens cap back off.

"You know what we were doing the day she died? We were out shopping. I didn't want to leave her alone, but Jake said she'd be fine. It was ninety degrees that day, and he just kept on going from store to store, and when we got back she was dead." She set the pan on the stove and turned on the burner. "The vet said it was the newparvo, but it wasn't. She died from the heat, poor little thing."

I set the Nikon down gently on the formica table and estimated the settings.

"When did Taco die?" I asked her, to make her turn around.

"Ninety," she said. She turned back to me, and I let my hand come down on the button in an almost soundless click, but her public face was still in place: apologetic now, smiling, a little sheepish. "My, that was a long time ago."

I stood up and collected my cameras. "I think I've got all the pictures I need," I said again. "If I don't, I'll come back out."

"Don't forget your briefcase," she said, handing me the eisenstadt. "Did your dog die of the newparvo, too?"

"He died fifteen years ago," I said. "In ninety-three."

She nodded understandingly. "The third wave," she said.

I went outside. Jake was standing behind the Winnebago, under the back window, holding the bucket. He shifted it to his left hand and held out his right hand to me. "You get all the pictures you needed?" he asked.

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"Yeah," I said. "I think your wife showed me about everything." I shook his hand.

"You come on back out if you need any more pictures," he said, and sounded, if possible, even more jovial, open-handed, friendly than he had before. "Mrs. Ambler and me, we always cooperate with the media."

"Your wife was telling me about your chihuahua," I said, more to see the effect on him than anything else.

"Yeah, the wife still misses that little dog after all these years," he said, and he looked the way she had, mildly apologetic, still smiling. "It died of the newparvo. I told her she ought to get it vaccinated, but she kept putting it off." He shook his head. "Of course, it wasn't really her fault. You know whose fault the newparvo really was, don't you?"

Yeah, I knew. It was the communists' fault, and it didn't matter that all their dogs had died, too, because he would say their chemical warfare had gotten out of hand or that everybody knows commies hate dogs. Or maybe it was the fault of the Japanese, though I doubted that. He was, after all, in a tourist business. Or the Democrats or the atheists or all of them put together, and even that was One Hundred Percent Authentic—portrait of the kind of man who drives a Winnebago—but I didn't want to hear it. I walked over to the Hitori and slung the eisenstadt in the back.

"You know who really killed your dog, don't you?" he called after me.

"Yes," I said, and got in the car.

I went home, fighting my way through a fleet of red-painted water tankers who weren't even bothering to try to outrun the cameras and thinking about Taco. My grandmother had had a chihuahua. Perdita. Meanest dog that ever lived. Used to lurk behind the door waiting to take Labrador-sized chunks out of my leg. And my grandmother's. It developed some lingering chihuahuan ailment that made it incontinent and even more ill-tempered, if that was possible.

Toward the end, it wouldn't even let my grandmother near it, but she refused to have it put to sleep and was unfailingly kind to it, even though I never saw any indication that the dog felt anything but unrelieved spite toward her. If the newparvo hadn't come along, it probably would still have been around making her life miserable.

I wondered what Taco, the wonder dog, able to distinguish red and green at a single intersection, had really been like, and if it had died of heat prostration. And what it had been like for the Amblers, living all that time in a hundred and fifty cubic feet together and blaming each other for their own guilt.

I called Ramirez as soon as I got home, breaking in without announcing myself, the way she always did. "I need a lifeline," I said.



"I'm glad you called," she said. "You got a call from the Society. And how's this as a slant for your story? 'The Winnebago and the Winnebagos.' They're an Indian tribe. In Minnesota, I think—why the hell aren't you at the governor's conference?"

"I came home," I said. "What did the Society want?"

"They didn't say. They asked for your schedule. I told them you were with the governor in Tempe. Is this about a story?"

"Yeah."

"Well, you run a proposal past me before you write it. The last thing the paper needs is to get in trouble with the Society."

"The lifeline's for Katherine Powell." I spelled it.

She spelled it back to me. "Is she connected with the Society story?"

"No."

"Then what is she connected with? I've got to put something on the request-for-info."

"Put down background."

"For the Winnebago story?"

"Yes," I said. "For the Winnebago story. How long will it take?"

"That depends. When do you plan to tell me why you ditched the governor's conference? And Taliessin West. Jesus Maria, I'll have to call the *Republic* and see if they'll trade footage. I'm sure they'll be thrilled to have shots of an extinct RV. That is, assuming you got any shots. You did make it out to the zoo, didn't you?"

"Yes. I got vidcam footage, stills, the works. I even used the eisenstadt."

"Mind sending your pictures in while I look up your old flame, or is that too much to ask? I don't know how long this will take. It took me two days to get clearance on the Amblers. Do you want the whole thing—pictures, documentation?"

"No. Just a resume. And a phone number."

She cut out, still not saying goodbye. If phones still had receivers, Ramirez would be a great one for hanging up on people. I highwired the vidcam footage and the eisenstadts in to the paper and then fed the eisenstadt cartridge into the developer. I was more than a little curious about what kind of pictures it would take, in spite of the fact that it was trying to do me out of a job. At least it used high-res film and not some damn two hundred thousand-pixel TV substitute. I didn't believe it could compose, and I doubted if the eisenstadt would be able to do foreground-background either, but it might, under certain circumstances, get a picture I couldn't.

The doorbell rang. I answered the door. A lanky young man in a Hawaiian shirt and baggies was standing on the front step, and there was another man in a Society uniform out in the driveway.

"Mr. McCombe?" he said, extending a hand. "Jim Hunter, Humane Society."

I don't know what I'd expected—that they wouldn't bother to trace the call? That they'd let somebody get away with leaving a dead animal on the road?

"I just wanted to stop by and thank you on behalf of the Society for phoning in that report on the jackal. Can I come in?"

He smiled, an open, friendly, smug smile, as if he expected me to be stupid enough to say, "I don't know what you're talking about," and slam the screen door on his hand.

"Just doing my duty," I said, smiling back at him.

"Well, we really appreciate responsible citizens like you. It makes our job a whole lot easier." He pulled a folded readout from his shirt pocket. "I just need to double-check a couple of things. You're a reporter for Sunco, is that right?"

"Photo-journalist," I said.

"And the Hitori you were driving belongs to the paper?"

I nodded.

"It has a phone. Why didn't you use it to make the call?"

The uniform was bending over the Hitori.

"I didn't realize it had a phone. The paper just bought the Hitoris. This is only the second time I've had one out."

Since they knew the paper had had phones put in, they also knew what I'd just told them. I wondered where they'd gotten the info. Public phones were supposed to be tap-free, and if they'd read the license number off one of the cameras, they wouldn't know who'd had the car unless they'd talked to Ramirez, and if they'd talked to her, she wouldn't have been talking blithely about the last thing she needed being trouble with the Society.

"You didn't know the car had a phone," he said, "so you drove to—" He consulted the readout, somehow giving the impression he was taking notes. I'd have bet there was a taper in the pocket of that shirt. "—The 7-Eleven at McDowell and Fortieth Street, and made the call from there. Why didn't you give the Society rep your name and address?"

"I was in a hurry," I said. "I had two assignments to cover before noon, the second out in Scottsdale."

"Which is why you didn't render assistance to the animal either. Because you were in a hurry."

You bastard, I thought. "No," I said. "I didn't render assistance because there wasn't any assistance to be rendered. The—it was dead."

"And how did you know that, Mr. McCombe?"

"There was blood coming out of its mouth," I said.

I had thought that that was a good sign, that he wasn't bleeding

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anywhere else. The blood had come out of Aberfan's mouth when he tried to lift his head, just a little trickle, sinking into the hard-packed snow. It had stopped before we even got him into the car. "It's all right, boy," I told him. "We'll be there in a minute."

Katie started the jeep, killed it, started it again, backed it up to where she could turn around.

Aberfan lay limply across my lap, his tail against the gear shift. "Just lie still, boy," I said. I patted his neck. It was wet, and I raised my hand and looked at the palm, afraid it was blood. It was only water from the melted snow. I dried his neck and the top of his head with the sleeve of my sweater.

"How far is it?" Katie said. She was clutching the steering wheel with both hands and sitting stiffly forward in the seat. The windshield wipers flipped back and forth, trying to keep up with the snow.

"About five miles," I said, and she stepped on the gas pedal and then let up on it again as we began to skid. "On the right side of the highway."

Aberfan raised his head off my lap and looked at me. His gums were gray, and he was panting, but I couldn't see any more blood. He tried to lick my hand. "You'll make it, Aberfan," I said. "You made it before, remember?"

"But you didn't get out of the car and go check, to make sure it was dead?" Hunter said.

"No."

"And you don't have any idea who hit the jackal?" he said, and made it sound like the accusation it was.

"No."

He glanced back at the uniform, who had moved around the car to the other side. "Whew," Hunter said, shaking his Hawaiian collar, "it's like an oven out here. Mind if I come in?" which meant the uniform needed more privacy. Well, then, by all means, give him more privacy. The sooner he sprayed print-fix on the bumper and tires and peeled off the incriminating traces of jackal blood that weren't there and stuck them in the evidence bags he was carrying in the pockets of that uniform, the sooner they'd leave. I opened the screen door wider.

"Oh, this is great," Hunter said, still trying to generate a breeze with his collar. "These old adobe houses stay so cool." He glanced around the room at the developer and the enlarger, the couch, the dry-mounted photographs on the wall. "You don't have any idea who might have hit the jackal?"

"I figure it was a tanker," I said. "What else would be on Van Buren that time of morning?"

I was almost sure it had been a car or a small truck. A tanker would have left the jackal a spot on the pavement. But a tanker would get a

license suspension and two weeks of having to run water into Santa Fe instead of Phoenix, and probably not that. Rumor at the paper had it the Society was in the water board's pocket. If it was a car, on the other hand, the Society would take away the car and stick its driver with a prison sentence.

"They're all trying to beat the cameras," I said. "The tanker probably didn't even know it'd hit it."

"What?" he said.

"I said, it had to be a tanker. There isn't anything else on Van Buren during rush hour."

I expected him to say, "Except for you," but he didn't. He wasn't even listening. "Is this your dog?" he said.

He was looking at the photograph of Perdita. "No," I said. "That was my grandmother's dog."

"What is it?"

A nasty little beast. And when it died of the newparvo, my grandmother had cried like a baby. "A chihuahua."

He looked around at the other walls. "Did you take all these pictures of dogs?" His whole manner had changed, taking on a politeness that made me realize just how insolent he had intended to be before. The one on the road wasn't the only jackal around.

"Some of them," I said. He was looking at the photograph next to it. "I didn't take that one."

"I know what this one is," he said, pointing at it. "It's a boxer, right?"

"An English bulldog," I said.

"Oh, right. Weren't those the ones that were exterminated? For being vicious?"

"No," I said.

He moved on to the picture over the developer, like a tourist in a museum. "I bet you didn't take this one either," he said, pointing at the high shoes, the old-fashioned hat on the stout old woman holding the dogs in her arms.

"That's a photograph of Beatrix Potter, the English children's author," I said. "She wrote *Peter Rabbit*."

He wasn't interested. "What kind of dogs are those?"

"Pekingese."

"It's a great picture of them."

It is, in fact, a terrible picture of them. One of them has wrenched his face away from the camera, and the other sits grimly in her owner's hand, waiting for its chance. Obviously neither of them liked having its picture taken, though you can't tell that from their expressions. They reveal nothing in their little flat-nosed faces, in their black little eyes.

Beatrix Potter, on the other hand, comes through beautifully, in spite

of the attempt to smile for the camera and the fact that she must have had to hold onto the Pekes for dear life, or maybe because of that. The fierce, humorous love she felt for her fierce, humorous little dogs is all there in her face. She must never, in spite of *Peter Rabbit* and its attendant fame, have developed a public face. Everything she felt was right there, unprotected, unshuttered. Like Katie.

"Are any of these your dog?" Hunter asked. He was standing looking at the picture of Misha that hung above the couch.

"No," I said.

"How come you don't have any pictures of your dog?" he asked, and I wondered how he knew I had had a dog and what else he knew.

"He didn't like having his picture taken."

He folded up the readout, stuck it in his pocket, and turned around to look at the photo of Perdita again. "He looks like he was a real nice little dog," he said.

The uniform was waiting on the front step, obviously finished with whatever he had done to the car.

"We'll let you know if we find out who's responsible," Hunter said, and they left. On the way out to the street the uniform tried to tell him what he'd found, but Hunter cut him off. The suspect has a house full of photographs of dogs, therefore he didn't run over a poor facsimile of one on Van Buren this morning. Case closed.

I went back over to the developer and fed the eisenstadt film in. "Positives, one two three order, five seconds," I said, and watched as the pictures came up on the developer's screen. Ramirez had said the eisenstadt automatically turned on whenever it was set upright on a level surface. She was right. It had taken a half-dozen shots on the way out to Tempe. Two shots of the Hitori it must have taken when I set it down to load the car, open door of same with prickly pear in the foreground, a blurred shot of palm trees and buildings with a minuscule, sharp-focused glimpse of the traffic on the expressway. Vehicles and people. There was a great shot of the red tanker that had clipped the jackal and ten or so of the yucca I had parked next to at the foot of the hill.

It had gotten two nice shots of my forearm as I set it down on the kitchen counter of the Winnebago and some beautifully composed still lifes of Melmac with Spoons. Vehicles and people. The rest of the pictures were dead losses: my back, the open bathroom door, Jake's back, and Mrs. Ambler's public face.

Except the last one. She had been standing right in front of the eisenstadt, looking almost directly into the lens. "When I think of that poor thing, all alone," she had said, and by the time she turned around she had her public face back on, but for a minute there, looking at what she

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thought was a briefcase and remembering, there she was, the person I had tried all morning to get a picture of.

I took it into the living room and sat down and looked at it awhile.

"So you knew this Katherine Powell in Colorado," Ramirez said, breaking in without preamble, and the highwire slid silently forward and began to print out the lifeline. "I always suspected you of having some deep dark secret in your past. Is she the reason you moved to Phoenix?"

I was watching the highwire advance the paper. Katherine Powell. 4628 Dutchman Drive, Apache Junction. Forty miles away.

"Holy Mother, you were really cradle-robbing. According to my calculations, she was seventeen when you lived there."

Sixteen.

"Are you the owner of the dog?" the vet had asked her, his face slackening into pity when he saw how young she was.

"No," she said. "I'm the one who hit him."

"My God," he said. "How old are you?"

"Sixteen," she said, and her face was wide open. "I just got my license."

"Aren't you even going to tell me what she has to do with this Winnebago thing?" Ramirez said.

"I moved down here to get away from the snow," I said, and cut out without saying goodbye.

The lifeline was still rolling silently forward. Hacker at Hewlett-Packard. Fired in ninety-nine, probably during the unionization. Divorced. Two kids. She had moved to Arizona five years after I did. Management programmer for Toshiba. Arizona driver's license.

I went back to the developer and looked at the picture of Mrs. Ambler. I had said dogs never came through. That wasn't true. Taco wasn't in the blurry snapshots Mrs. Ambler had been so anxious to show me, in the stories she had been so anxious to tell. But she was in this picture, reflected in the pain and love and loss on Mrs. Ambler's face. I could see her plain as day, perched on the arm of the driver's seat, barking impatiently when the light turned green.

I put a new cartridge in the eisenstadt and went out to see Katie.

I had to take Van Buren—it was almost four o'clock, and the rush hour would have started on the divided—buses—but the jackal was gone anyway. The Society is efficient. Like Hitler and his Nazis.

"Why don't you have any pictures of your dog?" Hunter had asked. The question could have been based on the assumption that anyone who would fill his living room with photographs of dogs must have had one of his own, but it wasn't. He had known about Aberfan, which meant he'd had access to my lifeline, which meant all kinds of things. My lifeline was privacy-coded, so I had to be notified before anybody could get access,



except, it appeared, the Society. A reporter I knew at the paper, Dolores Chiwere, had tried to do a story a while back claiming that the Society had an illegal link to the lifeline banks, but she hadn't been able to come up with enough evidence to convince her editor. I wondered if this counted.

The lifeline would have told them about Aberfan but not about how he died. Killing a dog wasn't a crime in those days, and I hadn't pressed charges against Katie for reckless driving or even called the police.

"I think you should," the vet's assistant had said. "There are less than a hundred dogs left. People can't just go around killing them."

"My God, man, it was snowing and slick," the vet had said angrily, "and she's just a kid."

"She's old enough to have a license," I said, looking at Katie. She was fumbling in her purse for her driver's license. "She's old enough to have been on the roads."

Katie found her license and gave it to me. It was so new it was still shiny. Katherine Powell. She had turned sixteen two weeks ago.

"This won't bring him back," the vet had said, and taken the license out of my hand and given it back to her. "You go on home now."

"I need her name for the records," the vet's assistant had said. She had stepped forward. "Katie Powell," she had said.

"We'll do the paperwork later," the vet had said firmly.

They never did do the paperwork, though. The next week the third wave hit, and I suppose there hadn't seemed any point.

I slowed down at the zoo entrance and looked up into the parking lot as I went past. The Amblers were doing a booming business. There were at least five cars and twice as many kids clustered around the Winnebago.

"Where the hell are you?" Ramirez said. "And where the hell are your pictures? I talked the *Republic* into a trade, but they insisted on scoop rights. I need your stills now!"

"I'll send them in as soon as I get home," I said. "I'm on a story."

"The hell you are! You're on your way out to see your old girlfriend. Well, not on the paper's credits, you're not."

"Did you get the stuff on the Winnebago Indians?" I asked her.

"Yes. They were in Wisconsin, but they're not anymore. In the mid-seventies there were sixteen hundred of them on the reservation and about forty-five hundred altogether, but by 1990, the number was down to five hundred, and now they don't think there are any left, and nobody knows what happened to them."

I'll tell you what happened to them, I thought. Almost all of them were killed in the first wave, and people blamed the government and the Japanese and the ozone layer, and after the second wave hit, the Society passed all kinds of laws to protect the survivors, but it was too late, they

were already below the minimum survival population limit, and then the third wave polished off the rest of them, and the last of the Winnebagoes sat in a cage somewhere, and if I had been there I would probably have taken his picture.

"I called the Bureau of Indian Affairs," Ramirez said, "and they're supposed to call me back, and you don't give a damn about the Winnebagoes. You just wanted to get me off the subject. What's this story you're on?"

I looked around the dashboard for an exclusion button.

"What the hell is going on, David? First you ditch two big stories, now you can't even get your pictures in. Jesus, if something's wrong, you can tell me. I want to help. It has something to do with Colorado, doesn't it?"

I found the button and cut her off.

Van Buren got crowded as the afternoon rush spilled over off the divided. Out past the curve, where Van Buren turns into Apache Boulevard, they were putting in new lanes. The cement forms were already up on the eastbound side, and they were building the wooden forms up in two of the six lanes on my side.

The Amblers must have just beaten the workmen, though at the rate the men were working right now, leaning on their shovels in the hot afternoon sun and smoking stew, it had probably taken them six weeks to do this stretch.

Mesa was still open multiway, but as soon as I was through downtown, the construction started again, and this stretch was nearly done—forms up on both sides and most of the cement poured. The Amblers couldn't have come in from Globe on this road. The lanes were barely wide enough for the Hitori, and the tanker lanes were gated. Superstition is full-divided, and the old highway down from Roosevelt is, too, which meant they hadn't come in from Globe at all. I wondered how they had come in—probably in some tanker lane on a multiway.

"Oh, my, the things we've seen," Mrs. Ambler had said. I wondered how much they'd been able to see skittering across the dark desert like a couple of kangaroo mice, trying to beat the cameras.

The roadworkers didn't have the new exit signs up yet, and I missed the exit for Apache Junction and had to go halfway to Superior, trapped in my narrow, cement-sided lane, till I hit a change-lanes and could get turned around.

Katie's address was in Superstition Estates, a development pushed up as close to the base of Superstition Mountain as it could get. I thought about what I would say to Katie when I got there. I had said maybe ten sentences altogether to her, most of them shouted directions, in the two hours we had been together. In the jeep on the way to the vet's I had

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talked to Aberfan, and after we got there, sitting in the waiting room, we hadn't talked at all.

It occurred to me that I might not recognize her. I didn't really remember what she looked like—only the sunburned nose and that terrible openness, and now, fifteen years later, it seemed unlikely that she would have either of them. The Arizona sun would have taken care of the first, and she had gotten married and divorced, been fired, had who knows what else happen to her in fifteen years to close her face. In which case, there had been no point in my driving all the way out here. But Mrs. Ambler had had an almost impenetrable public face, and you could still catch her off-guard. If you got her talking about the dogs. If she didn't know she was being photographed.

Katie's house was an old-style passive solar, with flat black panels on the roof. It looked presentable, but not compulsively neat. There wasn't any grass—tankers won't waste their credits coming this far out, and Apache Junction isn't big enough to match the bribes and incentives of Phoenix or Tempe—but the front yard was laid out with alternating patches of black lava chips and prickly pear. The side yard had a parched-looking palo verde tree, and there was a cat tied to it. A little girl was playing under it with toy cars.

I took the eisenstadt out of the back and went up to the front door and rang the bell. At the last moment, when it was too late to change my mind, walk away, because she was already opening the screen door, it occurred to me that she might not recognize me, that I might have to tell her who I was.

Her nose wasn't sunburned, and she had put on the weight a sixteen-year-old puts on to get to be thirty, but otherwise she looked the same as she had that day in front of my house. And her face hadn't completely closed. I could tell, looking at her, that she recognized me and that she had known I was coming. She must have put a notify on her lifeline to have them warn her if I asked her whereabouts. I thought about what that meant.

She opened the screen door a little, the way I had to the Humane Society. "What do you want?" she said.

I had never seen her angry, not even when I turned on her at the vet's. "I wanted to see you," I said.

I had thought I might tell her I had run across her name while I was working on a story and wondered if it was the same person or that I was doing a piece on the last of the passive solars. "I saw a dead jackal on the road this morning," I said.

"And you thought I killed it?" she said. She tried to shut the screen door.

I put out my hand without thinking to stop her. "No," I said. I took my

hand off the door. "No, of course I don't think that. Can I come in? I just want to talk to you."

The little girl had come over, clutching her toy cars to her pink T-shirt, and was standing off to the side, watching curiously.

"Come on inside, Jana," Katie said, and opened the screen door a fraction wider. The little girl scooted through. "Go on in the kitchen," she said. "I'll fix you some Kool-Aid." She looked up at me. "I used to have nightmares about your coming. I'd dream that I'd go to the door and there you'd be."

"It's really hot out here," I said and knew I sounded like Hunter. "Can I come in?"

She opened the screen door all the way. "I've got to make my daughter something to drink," she said, and led the way into the kitchen, the little girl dancing in front of her.

"What kind of Kool-Aid do you want?" Katie asked her, and she shouted, "Red!"

The kitchen counter faced the stove, refrigerator, and water cooler across a narrow aisle that opened out into an alcove with a table and chairs. I put the eisenstadt down on the table and then sat down myself so she wouldn't suggest moving into another room.

Katie reached a plastic pitcher down from one of the shelves and stuck it under the water tank to fill it. Jana dumped her cars on the counter, clambered up beside them, and began opening the cupboard doors.

"How old's your little girl?" I asked.

Katie got a wooden spoon out of the drawer next to the stove and brought it and the pitcher over to the table. "She's four," she said. "Did you find the Kool-Aid?" she asked the little girl.

"Yes," the little girl said, but it wasn't Kool-Aid. It was a pinkish cube she peeled a plastic wrapping off of. It fizzed and turned a thinnish red when she dropped it in the pitcher. Kool-Aid must have become extinct, too, along with Winnebagos and passive solar. Or else changed beyond recognition. Like the Humane Society.

Katie poured the red stuff into a glass with a cartoon whale on it.

"Is she your only one?" I asked.

"No, I have a little boy," she said, but warily, as if she wasn't sure she wanted to tell me, even though if I'd requested the lifeline I already had access to all this information. Jana asked if she could have a cookie and then took it and her Kool-Aid back down the hall and outside. I could hear the screen door slam.

Katie put the pitcher in the refrigerator and leaned against the kitchen counter, her arms folded across her chest. "What do you want?"

She was just out of range of the eisenstadt, her face in the shadow of the narrow aisle.

"There was a dead jackal on the road this morning," I said. I kept my voice low so she would lean forward into the light to try and hear me. "It'd been hit by a car, and it was lying funny, at an angle. It looked like a dog. I wanted to talk to somebody who remembered Aberfan, somebody who knew him."

"I didn't know him," she said. "I only killed him, remember? That's why you did this, isn't it, because I killed Aberfan?"

She didn't look at the eisenstadt, hadn't even glanced at it when I set it on the table, but I wondered suddenly if she knew what I was up to. She was still carefully out of range. And what if I said to her, "That's right. That's why I did this, because you killed him, and I didn't have any pictures of him. You owe me. If I can't have a picture of Aberfan, you at least owe me a picture of you remembering him."

Only she didn't remember him, didn't know anything about him except what she had seen on the way to the vet's, Aberfan lying on my lap and looking up at me, already dying. I had had no business coming here, dredging all this up again. No business.

"At first I thought you were going to have me arrested," Katie said, "and then after all the dogs died, I thought you were going to kill me."

The screen door banged. "Forgot my cars," the little girl said and scooped them into the tail of her T-shirt. Katie tousled her hair as she went past, and then folded her arms again.

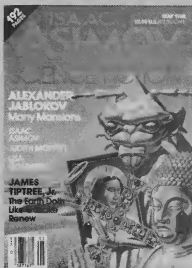
" 'It wasn't my fault,' I was going to tell you when you came to kill me," she said. " 'It was snowy. He ran right in front of me. I didn't even see him.' I looked up everything I could find about newparvo. Preparing for the defense. How it mutated from parvovirus and from cat distemper before that and then kept on mutating, so they couldn't come up with a vaccine. How even before the third wave they were below the minimum survival population. How it was the fault of the people who owned the last survivors because they wouldn't risk their dogs to breed them. How the scientists didn't come up with a vaccine until only the jackals were left. 'You're wrong,' I was going to tell you. 'It was the puppy mill owners' fault that all the dogs died. If they hadn't kept their dogs in such unsanitary conditions, it never would have gotten out of control in the first place.' I had my defense all ready. But you'd moved away."

Jana banged in again, carrying the empty whale glass. She had a red smear across the whole lower half of her face. "I need some more," she said, making "some more" into one word. She held the glass in both hands while Katie opened the refrigerator and poured her another glassful.

"Wait a minute, honey," she said. "You've got Kool-Aid all over you," and bent to wipe Jana's face with a paper towel.

Katie hadn't said a word in her defense while we waited at the vet's,

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not, "It was snowy," or, "He ran right out in front of me," or, "I didn't even see him." She had sat silently beside me, twisting her mittens in her lap, until the vet came out and told me Aberfan was dead, and then she had said, "I didn't know there were any left in Colorado. I thought they were all dead."

And I had turned to her, to a sixteen-year-old not even old enough to know how to shut her face, and said, "Now they all are. Thanks to you."

"That kind of talk isn't necessary," the vet had said warningly.

I had wrenched away from the hand he tried to put on my shoulder. "How does it feel to have killed one of the last dogs in the world?" I shouted at her. "How does it feel to be responsible for the extinction of an entire species?"

The screen door banged again. Katie was looking at me, still holding the reddened paper towel.

"You moved away," she said, "and I thought maybe that meant you'd forgiven me, but it didn't, did it?" She came over to the table and wiped at the red circle the glass had left. "Why did you do it? To punish me? Or did you think that's what I'd been doing the last fifteen years, roaring around the roads murdering animals?"

"What?" I said.

"The Society's already been here."

"The Society?" I said, not understanding.

"Yes," she said, still looking at the red-stained towel. "They said you had reported a dead animal on Van Buren. They wanted to know where I was this morning between eight and nine A.M."

I nearly ran down a roadworker on the way back into Phoenix. He leaped for the still-wet cement barrier, dropping the shovel he'd been leaning on all day, and I ran right over it.

The Society had already been there. They had left my house and gone straight to hers. Only that wasn't possible, because I hadn't even called Katie then. I hadn't even seen the picture of Mrs. Ambler yet. Which meant they had gone to see Ramirez after they left me, and the last thing Ramirez and the paper needed was trouble with the Society.

"I thought it was suspicious when he didn't go to the governor's conference," she had told them, "and just now he called and asked for a lifeline on this person here. Katherine Powell. 4628 Dutchman Drive. He knew her in Colorado."

"Ramirez!" I shouted at the car phone. "I want to talk to you!" There wasn't any answer.

I swore at her for a good ten miles before I remembered I had the exclusion button on. I punched it off. "Ramirez, where the hell are you?"

"I could ask you the same question," she said. She sounded even angrier



than Katie, but not as angry as I was. "You cut me off, you won't tell me what's going on."

"So you decided you had it figured out for yourself, and you told your little theory to the Society."

"What?" she said, and I recognized that tone, too. I had heard it in my own voice when Katie told me the Society had been there. Ramirez hadn't told anybody anything, she didn't even know what I was talking about, but I was going too fast to stop.

"You told the Society I'd asked for Katie's lifeline, didn't you?" I shouted.

"No," she said. "I didn't. Don't you think it's time you told me what's going on?"

"Did the Society come see you this afternoon?"

"No. I told you. They called this morning and wanted to talk to you. I told them you were at the governor's conference."

"And they didn't call back later?"

"No. Are you in trouble?"

I hit the exclusion button. "Yes," I said. "Yes, I'm in trouble."

Ramirez hadn't told them. Maybe somebody else at the paper had, but I didn't think so. There had after all been Dolores Chiwere's story about them having illegal access to the lifelines. "How come you don't have any pictures of your dog?" Hunter had asked me, which meant they'd read my lifeline, too. So they knew we had both lived in Colorado, in the same town, when Aberfan died.

"What did you tell them?" I had demanded of Katie. She had been standing there in the kitchen still messing with the Kool-Aid-stained towel, and I had wanted to yank it out of her hands and make her look at me. "What did you tell the Society?"

She looked up at me. "I told them I was on Indian School Road, picking up the month's programming assignments from my company. Unfortunately, I could just as easily have driven in on Van Buren."

"About Aberfan!" I shouted. "What did you tell them about Aberfan?"

She looked steadily at me. "I didn't tell them anything. I assumed you'd already told them."

I had taken hold of her shoulders. "If they come back, don't tell them anything. Not even if they arrest you. I'll take care of this. I'll . . ."

But I hadn't told her what I'd do because I didn't know. I had run out of her house, colliding with Jana in the hall on her way in for another refill, and roared off for home, even though I didn't have any idea what I would do when I got there.

Call the Society and tell them to leave Katie alone, that she had nothing to do with this? That would be even more suspicious than every-

thing else I'd done so far, and you couldn't get much more suspicious than that.

I had seen a dead jackal on the road (or so I said), and instead of reporting it immediately on the phone right there in my car, I'd driven to a convenience store two miles away. I'd called the Society, but I'd refused to give them my name and number. And then I'd canceled two shoots without telling my boss and asked for the lifeline of one Katherine Powell, whom I had known fifteen years ago and who could have been on Van Buren at the time of the accident.

The connection was obvious, and how long would it take them to make the connection that fifteen years ago was when Aberfan had died?

Apache was beginning to fill up with rush hour overflow and a whole fleet of tankers. The overflow obviously spent all their time driving divided—nobody bothered to signal that they were changing lanes. Nobody even gave an indication that they knew what a lane was. Going around the curve from Tempe and onto Van Buren they were all over the road. I moved over into the tanker lane.

My lifeline didn't have the vet's name on it. They were just getting started in those days, and there was a lot of nervousness about invasion of privacy. Nothing went online without the person's permission, especially not medical and bank records, and the lifelines were little more than puff bios: family, occupation, hobbies, pets. The only things on the lifeline besides Aberfan's name was the date of his death and my address at the time, but that was probably enough. There were only two vets in town.

The vet hadn't written Katie's name down on Aberfan's record. He had handed her driver's license back to her without even looking at it, but Katie had told her name to the vet's assistant. He might have written it down. There was no way I could find out. I couldn't ask for the vet's lifeline because the Society had access to the lifelines. They'd get to him before I could. I could maybe have the paper get the vet's records for me, but I'd have to tell Ramirez what was going on, and the phone was probably tapped, too. And if I showed up at the paper, Ramirez would confiscate the car. I couldn't go there.

Wherever the hell I was going, I was driving too fast to get there. When the tanker ahead of me slowed down to ninety, I practically climbed up his back bumper. I had gone past the place where the jackal had been hit without ever seeing it. Even without the traffic, there probably hadn't been anything to see. What the Society hadn't taken care of, the overflow probably had, and anyway, there hadn't been any evidence to begin with. If there had been, if the cameras had seen the car that hit it, they wouldn't have come after me. And Katie.

The Society couldn't charge her with Aberfan's death—killing an an-

imal hadn't been a crime back then—but if they found out about Aberfan they would charge her with the jackal's death, and it wouldn't matter if a hundred witnesses, a hundred highway cameras had seen her on Indian School Road. It wouldn't matter if the print-fix on her car was clean. She had killed one of the last dogs, hadn't she? They would crucify her.

I should never have left Katie. "Don't tell them anything," I had told her, but she had never been afraid of admitting guilt. When the receptionist had asked her what had happened, she had said, "I hit him," just like that, no attempt to make excuses, to run off, to lay the blame on someone else.

I had run off to try to stop the Society from finding out that Katie had hit Aberfan, and meanwhile the Society was probably back at Katie's, asking her how she'd happened to know me in Colorado, asking her how Aberfan died.

I was wrong about the Society. They weren't at Katie's house. They were at mine, standing on the porch, waiting for me to let them in.

"You're a hard man to track down," Hunter said.

The uniform grinned. "Where you been?"

"Sorry," I said, fishing my keys out of my pocket. "I thought you were all done with me. I've already told you everything I know about the incident."

Hunter stepped back just far enough for me to get the screen door open and the key in the lock. "Officer Segura and I just need to ask you a couple more questions."

"Where'd you go this afternoon?" Segura asked.

"I went to see an old friend of mine."

"Who?"

"Come on, come on," Hunter said. "Let the guy get in his own front door before you start badgering him with a lot of questions."

I opened the door. "Did the cameras get a picture of the tanker that hit the jackal?" I asked.

"Tanker?" Segura said.

"I told you," I said, "I figure it had to be a tanker. The jackal was lying in the tanker lane." I led the way into the living room, depositing my keys on the computer and switching the phone to exclusion while I talked. The last thing I needed was Ramirez bursting in with, "What's going on? Are you in trouble?"

"It was probably a renegade that hit it, which would explain why he didn't stop." I gestured at them to sit down.

Hunter did. Segura started for the couch and then stopped, staring at

the photos on the wall above it. "Jesus, will you look at all the dogs!" he said. "Did you take all these pictures?"

"I took some of them. That one in the middle is Misha."

"The last dog, right?"

"Yes," I said.

"No kidding. The very last one."

No kidding. She was being kept in isolation at the Society's research facility in St. Louis when I saw her. I had talked them into letting me shoot her, but it had to be from outside the quarantine area. The picture had an unfocused look that came from shooting it through a wire mesh-reinforced window in the door, but I wouldn't have done any better if they'd let me inside. Misha was past having any expression to photograph. She hadn't eaten in a week at that point. She lay with her head on her paws, staring at the door, the whole time I was there.

"You wouldn't consider selling this picture to the Society, would you?"

"No, I wouldn't."

He nodded understandingly. "I guess people were pretty upset when she died."

Pretty upset. They had turned on anyone who had anything to do with it—the puppy mill owners, the scientists who hadn't come up with a vaccine, Misha's vet—and a lot of others who hadn't. And they had handed over their civil rights to a bunch of jackals who were able to grab them because everybody felt so guilty. Pretty upset.

"What's this one?" Segura asked. He had already moved on to the picture next to it.

"It's General Patton's bull terrier Willie."

They fed and cleaned up after Misha with those robot arms they used to use in the nuclear plants. Her owner, a tired-looking woman, was allowed to watch her through the wire-mesh window but had to stay off to the side because Misha flung herself barking against the door whenever she saw her.

"You should make them let you in," I had told her. "It's cruel to keep her locked up like that. You should make them let you take her back home."

"And let her get the newparvo?" she said.

There was nobody left for Misha to get the newparvo from, but I didn't say that. I set the light readings on the camera, trying not to lean into Misha's line of vision.

"You know what killed them, don't you?" she said. "The ozone layer. All those holes. The radiation got in and caused it."

It was the communists, it was the Mexicans, it was the government. And the only people who acknowledged their guilt weren't guilty at all.

"This one here looks kind of like a jackal," Segura said. He was looking

at a picture I had taken of a German shepherd after Aberfan died. "Dogs were a lot like jackals, weren't they?"

"No," I said, and sat down on the shelf in front of the developer's screen, across from Hunter. "I already told you everything I know about the jackal. I saw it lying in the road, and I called you."

"You said when you saw the jackal it was in the far right lane," Hunter said.

"That's right."

"And you were in the far left lane?"

"I was in the far left lane."

They were going to take me over my story, point by point, and when I couldn't remember what I'd said before, they were going to say, "Are you sure that's what you saw, Mr. McCombe? Are you sure you didn't see the jackal get hit? Katherine Powell hit it, didn't she?"

"You told us this morning you stopped, but the jackal was already dead. Is that right?" Hunter asked.

"No," I said.

Segura looked up. Hunter touched his hand casually to his pocket and then brought it back to his knee, turning on the taper.

"I didn't stop for about a mile. Then I backed up and looked at it, but it was dead. There was blood coming out of its mouth."

Hunter didn't say anything. He kept his hands on his knees and waited—an old journalist's trick, if you wait long enough, they'll say something they didn't intend to, just to fill the silence.

"The jackal's body was at a peculiar angle," I said, right on cue. "The way it was lying, it didn't look like a jackal. I thought it was a dog." I waited till the silence got uncomfortable again. "It brought back a lot of terrible memories," I said. "I wasn't even thinking. I just wanted to get away from it. After a few minutes I realized I should have called the Society, and I stopped at the 7-Eleven."

I waited again, till Segura began to shoot uncomfortable glances at Hunter, and then started in again. "I thought I'd be okay, that I could go ahead and work, but after I got to my first shoot, I knew I wasn't going to make it, so I came home." Candor. Openness. If the Amblers can do it, so can you. "I guess I was still in shock or something. I didn't even call my boss and have her get somebody to cover the governor's conference. All I could think about was—" I stopped and rubbed my hand across my face. "I needed to talk to somebody. I had the paper look up an old friend of mine, Katherine Powell."

I stopped, I hoped this time for good. I had admitted lying to them and confessed to two crimes: leaving the scene of the accident and using press access to get a lifeline for personal use, and maybe that would be enough to satisfy them. I didn't want to say anything about going out to see

Katie. They would know she would have told me about their visit and decide this confession was an attempt to get her off, and maybe they'd been watching the house and knew it anyway, and this was all wasted effort.

The silence dragged on. Hunter's hands tapped his knees twice and then subsided. The story didn't explain why I'd picked Katie, who I hadn't seen in fifteen years, who I knew in Colorado, to go see, but maybe, maybe they wouldn't make the connection.

"This Katherine Powell," Hunter said, "you knew her in Colorado, is that right?"

"We lived in the same little town."

We waited.

"Isn't that when your dog died?" Segura said suddenly. Hunter shot him a glance of pure rage, and I thought, it isn't a taper he's got in that shirt pocket. It's the vet's records, and Katie's name is on them.

"Yes," I said. "He died in September of eighty-nine."

Segura opened his mouth.

"In the third wave?" Hunter asked before he could say anything.

"No," I said. "He was hit by a car."

They both looked genuinely shocked. The Amblers could have taken lessons from them. "Who hit it?" Segura asked, and Hunter leaned forward, his hand moving reflexively toward his pocket.

"I don't know," I said. "It was a hit and run. Whoever it was just left him lying there in the road. That's why when I saw the jackal, it . . . that was how I met Katherine Powell. She stopped and helped me. She helped me get him into her car, and we took him to the vet's, but it was too late."

Hunter's public face was pretty indestructible, but Segura's wasn't. He looked surprised and enlightened and disappointed all at once.

"That's why I wanted to see her," I said unnecessarily.

"Your dog was hit on what day?" Hunter asked.

"September thirtieth."

"What was the vet's name?"

He hadn't changed his way of asking the questions, but he no longer cared what the answers were. He had thought he'd found a connection, a cover-up, but here we were, a couple of dog lovers, a couple of good Samaritans, and his theory had collapsed. He was done with the interview, he was just finishing up, and all I had to do was be careful not to relax too soon.

I frowned. "I don't remember his name. Cooper, I think."

"What kind of car did you say hit your dog?"

"I don't know," I said, thinking, not a jeep. Make it something besides

a jeep. "I didn't see him get hit. The vet said it was something big, a pickup maybe. Or a Winnebago."

And I knew who had hit the jackal. It had all been right there in front of me—the old man using up their forty-gallon water supply to wash the bumper, the lies about their coming in from Globe—only I had been too intent on keeping them from finding out about Katie, on getting the picture of Aberfan, to see it. It was like the damned parvo. When you had it licked in one place, it broke out somewhere else.

"Were there any identifying tire tracks?" Hunter said.

"What?" I said. "No. It was snowing that day." It had to show in my face, and he hadn't missed anything yet. I passed my hand over my eyes. "I'm sorry. These questions are bringing it all back."

"Sorry," Hunter said.

"Can't we get this stuff from the police report?" Segura asked.

"There wasn't a police report," I said. "It wasn't a crime to kill a dog when Aberfan died."

It was the right thing to say. The look of shock on their faces was the real thing this time, and they looked at each other in disbelief instead of at me. They asked a few more questions and then stood up to leave. I walked them to the door.

"Thank you for your cooperation, Mr. McCombe," Hunter said. "We appreciate what a difficult experience this has been for you."

I shut the screen door between us. The Amblers would have been going too fast, trying to beat the cameras because they weren't even supposed to be on Van Buren. It was almost rush hour, and they were in the tanker lane, and they hadn't even seen the jackal till they hit it, and then it was too late. They had to know the penalty for hitting an animal was jail and confiscation of the vehicle, and there wasn't anybody else on the road.

"Oh, one more question," Hunter said from halfway down the walk. "You said you went to your first assignment this morning. What was it?"

Candid. Open. "It was out at the old zoo. A sideshow kind of thing."

I watched them all the way out to their car and down the street. Then I latched the screen, pulled the inside door shut, and locked it, too. It had been right there in front of me—the ferret sniffing the wheel, the bumper, Jake anxiously watching the road. I had thought he was looking for customers, but he wasn't. He was expecting to see the Society drive up. "He's not interested in that," he had said when Mrs. Ambler said she had been telling me about Taco. He had listened to our whole conversation, standing under the back window with his guilty bucket, ready to come back in and cut her off if she said too much, and I hadn't tumbled to any of it. I had been so intent on Aberfan I hadn't even seen it when

I looked right through the lens at it. And what kind of an excuse was that? Katie hadn't even tried to use it, and she was learning to drive.

I went and got the Nikon and pulled the film out of it. It was too late to do anything about the eisenstadt pictures or the vidcam footage, but I didn't think there was anything in them. Jake had already washed the bumper by the time I'd taken those pictures.

I fed the longshot film into the developer. "Positives, one two three order, fifteen seconds," I said, and waited for the image to come on the screen.

I wondered who had been driving. Jake, probably. "He never liked Taco," she had said, and there was no mistaking the bitterness in her voice. "I didn't want to buy the Winnebago."

They would both lose their licenses, no matter who was driving, and the Society would confiscate the Winnebago. They would probably not send two octogenarian specimens of Americana like the Amblers to prison. They wouldn't have to. The trial would take six months, and Texas already had legislation in committee.

The first picture came up. A light-setting shot of an ocotillo.

Even if they got off, even if they didn't end up taking away the Winnebago for unauthorized use of a tanker lane or failure to purchase a sales tax permit, the Amblers had six months left at the outside. Utah was all ready to pass a full-divided bill, and Arizona would be next. In spite of the road crews' stew-slowed pace, Phoenix would be all-divided by the time the investigation was over, and they'd be completely boxed in. Permanent residents of the zoo. Like the coyote.

A shot of the zoo sign, half-hidden in the cactus. A close-up of the Amblers' balloon-trailing sign. The Winnebago in the parking lot.

"Hold," I said. "Crop." I indicated the areas with my finger. "Enlarge to full screen."

The longshot takes great pictures, sharp contrast, excellent detail. The developer only had a five hundred thousand-pixel screen, but the dark smear on the bumper was easy to see, and the developed picture would be much clearer. You'd be able to see every splatter, every grayish-yellow hair. The Society's computers would probably be able to type the blood from it.

"Continue," I said, and the next picture came on the screen. Artsy shot of the Winnebago and the zoo entrance. Jake washing the bumper. Red-handed.

Maybe Hunter had bought my story, but he didn't have any other suspects, and how long would it be before he decided to ask Katie a few more questions? If he thought it was the Amblers, he'd leave her alone.

The Japanese family clustered around the waste-disposal tank. Close-



up of the decals on the side. Interiors—Mrs. Ambler in the galley, the upright-coffin shower stall, Mrs. Ambler making coffee.

No wonder she had looked that way in the eisenstadt shot, her face full of memory and grief and loss. Maybe in the instant before they hit it, it had looked like a dog to her, too.

All I had to do was tell Hunter about the Amblers, and Katie was off the hook. It should be easy. I had done it before.

"Stop," I said to a shot of the salt-and-pepper collection. The black and white scottie dogs had painted, red-plaid bows and red tongues. "Expose," I said. "One through twenty-four."

The screen went to question marks and started beeping. I should have known better. The developer could handle a lot of orders, but asking it to expose perfectly good film went against its whole memory, and I didn't have time to give it the step-by-steps that would convince it I meant what I said.

"Eject," I said. The scotties blinked out. The developer spat out the film, rerolled into its protective case.

The doorbell rang. I switched on the overhead and pulled the film out to full length and held it directly under the light. I had told Hunter an RV hit Aberfan, and he had said on the way out, almost an afterthought, "That first shoot you went to, what was it?" And after he left, what had he done, gone out to check on the sideshow kind of thing, gotten Mrs. Ambler to spill her guts? There hadn't been time to do that and get back. He must have called Ramirez. I was glad I had locked the door.

I turned off the overhead. I rerolled the film, fed it back into the developer, and gave it a direction it could handle. "Permanganate bath, full strength, one through twenty-four. Remove one hundred per cent emulsion. No notify."

The screen went dark. It would take the developer at least fifteen minutes to run the film through the bleach bath, and the Society's computers could probably enhance a picture out of two crystals of silver and thin air, but at least the detail wouldn't be there. I unlocked the door.

It was Katie.

She held up the eisenstadt. "You forgot your briefcase," she said.

I stared blankly at it. I hadn't even realized I didn't have it. I must have left it on the kitchen table when I went tearing out, running down little girls and stewed roadworkers in my rush to keep Katie from getting involved. And here she was, and Hunter would be back any minute, saying, "That shoot you went on this morning, did you take any pictures?"

"It isn't a briefcase," I said.

"I wanted to tell you," she said, and stopped. "I shouldn't have accused you of telling the Society I'd killed the jackal. I don't know why you came to see me today, but I know you're not capable of—"

"You have no idea what I'm capable of," I said. I opened the door enough to reach for the eisenstadt. "Thanks for bringing it back. I'll get the paper to reimburse your way-mile credits."

Go home. Go home. If you're here when the Society comes back, they'll ask you how you met me, and I just destroyed the evidence that could shift the blame to the Amblers. I took hold of the eisenstadt's handle and started to shut the door.

She put her hand on the door. The screen door and the fading light made her look unfocused, like Misha. "Are you in trouble?"

"No," I said. "Look, I'm very busy."

"Why did you come to see me?" she asked. "Did you kill the jackal?"

"No," I said, but I opened the door and let her in.

I went over to the developer and asked for a visual status. It was only on the sixth frame. "I'm destroying evidence," I said to Katie. "I took a picture this morning of the vehicle that hit it, only I didn't know it was the guilty party until a half an hour ago." I motioned for her to sit down on the couch. "They're in their eighties. They were driving on a road they weren't supposed to be on, in an obsolete recreation vehicle, worrying about the cameras and the tankers. There's no way they could have seen it in time to stop. The Society won't see it that way, though. They're determined to blame somebody, anybody, even though it won't bring them back."

She set her canvas carryit and the eisenstadt down on the table next to the couch. "The Society was here when I got home," I said. "They'd figured out we were both in Colorado when Aberfan died. I told them it was a hit and run, and you'd stopped to help me. They had the vet's records, and your name was on them."

I couldn't read her face. "If they come back, you tell them that you gave me a ride to the vet's." I went back to the developer. The longshot film was done. "Eject," I said, and the developer spit it into my hand. I fed it into the recycler.

"McCombe! Where the hell are you?" Ramirez's voice exploded into the room, and I jumped and started for the door, but she wasn't there. The phone was flashing. "McCombe! This is important!"

Ramirez was on the phone and using some override I didn't even know existed. I went over and pushed it back to access. The lights went out. "I'm here," I said.

"You won't believe what just happened!" She sounded outraged. "A couple of terrorist types from the Society just stormed in here and confiscated the stuff you sent me!"

All I'd sent her was the vidcam footage and the shots from the eisenstadt, and there shouldn't have been anything on those. Jake had already washed the bumper. "What stuff?" I said.

"The prints from the eisenstadt!" she said, still shouting. "Which I didn't have a chance to look at when they came in because I was too busy trying to work a trade on your governor's conference, not to mention trying to track you down! I had hardcopies made and sent the originals straight down to composing with your vidcam footage. I finally got to them half an hour ago, and while I'm sorting through them, this Society creep just grabs them away from me. No warrants, no 'would you mind?', nothing. Right out of my hand. Like a bunch of—"

"Jackals," I said. "You're sure it wasn't the vidcam footage?" There wasn't anything in the eisenstadt shots except Mrs. Ambler and Taco, and even Hunter couldn't have put that together, could he?

"Of course I'm sure," Ramirez said, her voice bouncing off the walls. "It was one of the prints from the eisenstadt. I never even saw the vidcam stuff. I sent it straight to composing. I told you."

I went over to the developer and fed the cartridge in. The first dozen shots were nothing, stuff the eisenstadt had taken from the back seat of the car. "Start with frame ten," I said. "Positives. One two three order. Five seconds."

"What did you say?" Ramirez demanded.

"I said, did they say what they were looking for?"

"Are you kidding? I wasn't even there as far as they were concerned. They split up the pile and started through them on *my* desk."

The yucca at the foot of the hill. More yucca. My forearm as I set the eisenstadt down on the counter. My back.

"Whatever it was they were looking for, they found it," Ramirez said.

I glanced at Katie. She met my gaze steadily, unafraid. She had never been afraid, not even when I told her she had killed all the dogs, not even when I showed up on her doorstep after fifteen years.

"The one in the uniform showed it to the other one," Ramirez was saying, "and said, 'You were wrong about the woman doing it. Look at this.'"

"Did you get a look at the picture?"

Still life of cups and spoons. Mrs. Ambler's arm. Mrs. Ambler's back.

"I tried. It was a truck of some kind."

"A truck? Are you sure? Not a Winnebago?"

"A truck. What the hell is going on over there?"

I didn't answer. Jake's back. Open shower door. Still life with Sanka. Mrs. Ambler remembering Taco.

"What woman are they talking about?" Ramirez said. "The one you wanted the lifeline on?"

"No," I said. The picture of Mrs. Ambler was the last one on the cartridge. The developer went back to the beginning. Bottom half of the Hitori. Open car door. Prickly pear. "Did they say anything else?"

"The one in uniform pointed to something on the hardcopy and said, 'See. There's his number on the side. Can you make it out?'"

Blurred palm trees and the expressway. The tanker hitting the jackal.

"Stop," I said. The image froze.

"What?" Ramirez said.

It was a great action shot, the back wheels passing right over the mess that had been the jackal's hind legs. The jackal was already dead, of course, but you couldn't see that or the already drying blood coming out of its mouth because of the angle. You couldn't see the truck's license number either because of the speed the tanker was going, but the number was there, waiting for the Society's computers. It looked like the tanker had just hit it.

"What did they do with the picture?" I asked.

"They took it into the chief's office. I tried to call up the originals from composing, but the chief had already sent for them *and* your vidcam footage. Then I tried to get you, but I couldn't get past your damned exclusion."

"Are they still in there with the chief?"

"They just left. They're on their way over to your house. The chief told me to tell you he wants 'full cooperation,' which means hand over the negatives and any other film you just took this morning. He told *me* to keep my hands off. No story. Case closed."

"How long ago did they leave?"

"Five minutes. You've got plenty of time to make me a print. Don't highwire it. I'll come pick it up."

"What happened to, 'The last thing I need is trouble with the Society?'"

"It'll take them at least twenty minutes to get to your place. Hide it somewhere the Society won't find it."

"I can't," I said, and listened to her furious silence. "My developer's broken. It just ate my longshot film," I said, and hit the exclusion button again.

"You want to see who hit the jackal?" I said to Katie, and motioned her over to the developer. "One of Phoenix's finest."

She came and stood in front of the screen, looking at the picture. If the Society's computers were really good, they could probably prove the jackal was already dead, but the Society wouldn't keep the film long enough for that. Hunter and Segura had probably already destroyed the highwire copies. Maybe I should offer to run the cartridge sheet through the permanganate bath for them when they got here, just to save time.

I looked at Katie. "It looks guilty as hell, doesn't it?" I said. "Only it isn't." She didn't say anything, didn't move. "It would have killed the jackal if it had hit it. It was going at least ninety. But the jackal was already dead."

She looked across at me.

"The Society would have sent the Amblers to jail. It would have confiscated the house they've lived in for fifteen years for an accident that was nobody's fault. They didn't even see it coming. It just ran right out in front of them."

Katie put her hand up to the screen and touched the jackal's image.

"They've suffered enough," I said, looking at her. It was getting dark. I hadn't turned on any lights, and the red image of the tanker made her nose look sunburned.

"All these years she's blamed him for her dog's death, and he didn't do it," I said. "A Winnebago's a hundred square feet on the inside. That's about as big as this developer, and they've lived inside it for fifteen years, while the lanes got narrower and the highways shut down, hardly enough room to breathe, let alone live, and her blaming him for something he didn't do."

In the ruddy light from the screen she looked sixteen.

"They won't do anything to the driver, not with the tankers hauling thousands of gallons of water into Phoenix every day. Even the Society won't run the risk of a boycott. They'll destroy the negatives and call the case closed. And the Society won't go after the Amblers," I said. "Or you."

I turned back to the developer. "Go," I said, and the image changed. Yucca. Yucca. My forearm. My back. Cups and spoons.

"Besides," I said. "I'm an old hand at shifting the blame." Mrs. Ambler's arm. Mrs. Ambler's back. Open shower door. "Did I ever tell you about Aberfan?"

Katie was still watching the screen, her face pale now from the light blue one hundred percent formica shower stall.

"The Society already thinks the tanker did it. The only one I've got to convince is my editor." I reached across to the phone and took the exclusion off. "Ramirez," I said, "wanta go after the Society?"

Jake's back. Cups, spoons, and Sanka.

"I did," Ramirez said in a voice that could have frozen the Salt River, "but your developer was broken, and you couldn't get me a picture."

Mrs. Ambler and Taco.

I hit the exclusion button again and left my hand on it. "Stop," I said. "Print." The screen went dark, and the print slid out into the tray. "Reduce frame. Permanganate bath by one per cent. Follow on screen." I took my hand off. "What's Dolores Chiwere doing these days, Ramirez?"

"She's working investigative. Why?"

I didn't answer. The picture of Mrs. Ambler faded a little, a little more.

"The Society *does* have a link to the lifelines!" Ramirez said, not quite as fast as Hunter, but almost. "That's why you requested your old girlfriend's line, isn't it? You're running a sting."

I had been wondering how to get Ramirez off Katie's trail, and she had done it herself, jumping to conclusions just like the Society. With a little effort, I could convince Katie, too: Do you know why I really came to see you today? To catch the Society. I had to pick somebody the Society couldn't possibly know about from my lifeline, somebody I didn't have any known connection with.

Katie watched the screen, looking like she already half-believed it. The picture of Mrs. Ambler faded some more. Any known connection.

"Stop," I said.

"What about the truck?" Ramirez demanded. "What does it have to do with this sting of yours?"

"Nothing," I said. "And neither does the water board, which is an even bigger bully than the Society. So do what the chief says. Full cooperation. Case closed. We'll get them on lifeline tapping."

She digested that, or maybe she'd already hung up and was calling Dolores Chiwere. I looked at the image of Mrs. Ambler on the screen. It had faded enough to look slightly overexposed but not enough to look tampered with. And Taco was gone.

I looked at Katie. "The Society will be here in another fifteen minutes," I said, "which gives me just enough time to tell you about Aberfan." I gestured at the couch. "Sit down."

She came and sat down. "He was a great dog," I said. "He loved the snow. He'd dig through it and toss it up with his muzzle and snap at the snowflakes, trying to catch them."

Ramirez had obviously hung up, but she would call back if she couldn't track down Chiwere. I put the exclusion back on and went over to the developer. The image of Mrs. Ambler was still on the screen. The bath hadn't affected the detail that much. You could still see the wrinkles, the thin white hair, but the guilt, or blame, the look of loss and love, was gone. She looked serene, almost happy.

"There are hardly any good pictures of dogs," I said. "They lack the necessary muscles to take good pictures, and Aberfan lunged at you as soon as he saw the camera."

I turned the developer off. Without the light from the screen, it was almost dark in the room. I turned on the overhead.

"There were less than a hundred dogs left in the United States, and he'd already had the newparvo once and nearly died. The only pictures I had of him had been taken when he was asleep. I wanted a picture of Aberfan playing in the snow."

I leaned against the narrow shelf in front of the developer's screen. Katie looked the way she had at the vet's, sitting there with her hands clenched, waiting for me to tell her something terrible.

"I wanted a picture of him playing in the snow, but he always lunged

at the camera," I said, "so I let him out in the front yard, and then I sneaked out the side door and went across the road to some pine trees where he wouldn't be able to see me. But he did."

"And he ran across the road," Katie said. "And I hit him."

She was looking down at her hands. I waited for her to look up, dreading what I would see in her face. Or not see.

"It took me a long time to find out where you'd gone," she said to her hands. "I was afraid you'd refuse me access to your lifeline. I finally saw one of your pictures in a newspaper, and I moved to Phoenix, but after I got here I was afraid to call you for fear you'd hang up on me."

She twisted her hands the way she had twisted her mittens at the vet's. "My husband said I was obsessed with it, that I should have gotten over it by now, everybody else had, that they were only dogs anyway." She looked up, and I braced my hands against the developer. "He said forgiveness wasn't something somebody else could give you, but I didn't want you to forgive me exactly. I just wanted to tell you I was sorry."

There hadn't been any reproach, any accusation in her face when I told her she was responsible for the extinction of a species that day at the vet's, and there wasn't now. Maybe she didn't have the facial muscles for it, I thought bitterly.

"Do you know why I came to see you today?" I said angrily. "My camera broke when I tried to catch Aberfan. I didn't get any pictures." I grabbed the picture of Mrs. Ambler out of the developer's tray and flung it at her. "Her dog died of newparvo. They left it in the Winnebago, and when they came back, it was dead."

"Poor thing," she said, but she wasn't looking at the picture. She was looking at me.

"She didn't know she was having her picture taken. I thought if I got you talking about Aberfan, I could get a picture like that of you."

And surely now I would see it, the look I had really wanted when I set the eisenstadt down on Katie's kitchen table, the look I still wanted, even though the eisenstadt was facing the wrong way, the look of betrayal the dogs had never given us. Not even Misha. Not even Aberfan. How does it feel to be responsible for the extinction of an entire species?

I pointed at the eisenstadt. "It's not a briefcase. It's a camera. I was going to take your picture without your even knowing it."

She had never known Aberfan. She had never known Mrs. Ambler either, but in that instant before she started to cry she looked like both of them. She put her hand up to her mouth. "Oh," she said, and the love, the loss was there in her voice, too. "If you'd had it then, it wouldn't have happened."

I looked at the eisenstadt. If I had had it, I could have set it on the porch and Aberfan would never have even noticed it. He would have





burrowed through the snow and tossed it up with his nose, and I could have thrown snow up in big glittering sprays that he would have leaped at, and it never would have happened. Katie Powell would have driven past, and I would have stopped to wave at her, and she, sixteen years old and just learning to drive, would maybe even have risked taking a mit-tened hand off the steering wheel to wave back, and Aberfan would have wagged his tail into a blizzard and then barked at the snow he'd churned up.

He wouldn't have caught the third wave. He would have lived to be an old dog, fourteen or fifteen, too old to play in the snow any more, and even if he had been the last dog in the world I would not have let them lock him up in a cage, I would not have let them take him away. If I had had the eisenstadt.

No wonder I hated it.

It had been at least fifteen minutes since Ramirez called. The Society would be here any minute. "You shouldn't be here when the Society comes," I said, and Katie nodded and smudged the tears off her cheeks and stood up, reaching for her carryit.

"Do you ever take pictures?" she said, shouldering the carryit. "I mean, besides for the papers?"

"I don't know if I'll be taking pictures for them much longer. Photo-journalists are becoming an extinct breed."

"Maybe you could come take some pictures of Jana and Kevin. Kids grow up so fast, they're gone before you know it."

"I'd like that," I said. I opened the screen door for her and looked both ways down the street at the darkness. "All clear," I said, and she went out. I shut the screen door between us.

She turned and looked at me one last time with her dear, open face that even I hadn't been able to close. "I miss them," she said.

I put my hand up to the screen. "I miss them, too."

I watched her to make sure she turned the corner and then went back in the living room and took down the picture of Misha. I propped it against the developer so Segura would be able to see it from the door. In a month or so, when the Amblers were safely in Texas and the Society had forgotten about Katie, I'd call Segura and tell him I might be willing to sell it to the Society, and then in a day or so I'd tell him I'd changed my mind. When he came out to try to talk me into it, I'd tell him about Perdita and Beatrix Potter, and he would tell me about the Society.

Chiwere and Ramirez would have to take the credit for the story—I didn't want Hunter putting anything else together—and it would take more than one story to break them, but it was a start.

Katie had left the print of Mrs. Ambler on the couch. I picked it up

and looked at it a minute and then fed it into the developer. "Recycle," I said.

I picked up the eisenstadt from the table by the couch and took the film cartridge out. I started to pull the film out to expose it, and then shoved it into the developer instead and turned it on. "Positives, one two three order, five seconds."

I had apparently set the camera on its activator again—there were ten shots or so of the back seat of the Hitori. Vehicles and people. The pictures of Katie were all in shadow. There was a Still Life of Kool-Aid Pitcher with Whale Glass and another one of Jana's toy cars, and some near-black frames that meant Katie had laid the eisenstadt face-down when she brought it to me.

"Two seconds," I said, and waited for the developer to flash the last shots so I could make sure there wasn't anything else on the cartridge and then expose it before the Society got here. All but the last frame was of the darkness that was all the eisenstadt could see lying on its face. The last one was of me.

The trick in getting good pictures is to make people forget they're being photographed. Distract them. Get them talking about something they care about.

"Stop," I said, and the image froze.

Aberfan was a great dog. He loved to play in the snow, and after I had murdered him, he lifted his head off my lap and tried to lick my hand.

The Society would be here any minute to take the longshot film and destroy it, and this one would have to go, too, along with the rest of the cartridge. I couldn't risk Hunter's being reminded of Katie. Or Segura taking a notion to do a print-fix and peel on Jana's toy cars.

It was too bad. The eisenstadt takes great pictures. "Even you'll forget it's a camera," Ramirez had said in her spiel, and that was certainly true. I was looking straight into the lens.

And it was all there, Misha and Taco and Perdita and the look he gave me on the way to the vet's while I stroked his poor head and told him it would be all right, that look of love and pity I had been trying to capture all these years. The picture of Aberfan.

The Society would be here any minute. "Eject," I said, and cracked the cartridge open, and exposed it to the light. ●

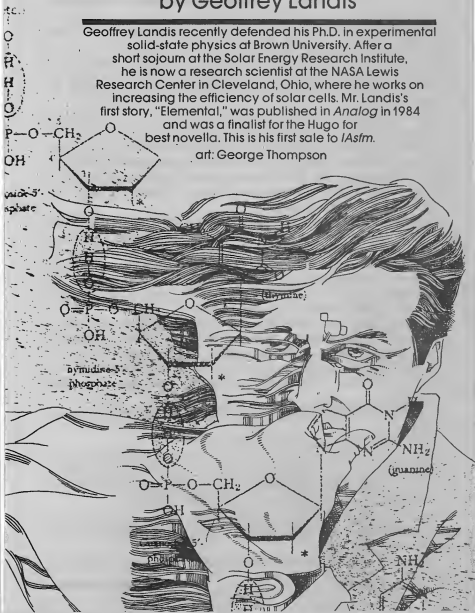


# VACUUM STATES

by Geoffrey Landis

Geoffrey Landis recently defended his Ph.D. in experimental solid-state physics at Brown University. After a short sojourn at the Solar Energy Research Institute, he is now a research scientist at the NASA Lewis Research Center in Cleveland, Ohio, where he works on increasing the efficiency of solar cells. Mr. Landis's first story, "Elemental," was published in *Analog* in 1984 and was a finalist for the Hugo for best novella. This is his first sale to *IASfm*.

art: George Thompson



"... the vacuum state must contain many particles in a state of transient existence with violent fluctuations. . . . The total energy of the vacuum is infinite. . . ."

—P.A.M. Dirac, *Quantum Mechanics*

You open the door hesitantly, then walk into the laboratory where the two scientists wait for you. They seem to know you. Perhaps you are a science writer, well known for your ability to convey a sense of the excitement of even the most arcane scientific discoveries. Or perhaps you are merely a friend, someone who knows both of them from long ago. It doesn't matter.

The older scientist smiles as she sees you. She is a world-renowned physicist, and justly so, an iconoclast who laughingly destroyed the world view of her predecessors and rebuilt the universe to match her own view of beauty. Some say that now, older, she has grown conservative, less open to speculation. Her hair is clipped short, just beginning to grey. Call her Celia. Whatever else she may be, she is a friend. Between you no titles or last names are needed.

And the younger scientist, barely out of grad school, with an infectious enthusiasm and boundless energy; the new iconoclast, the barbarian storming the walls of the citadel of knowledge, already being compared to the young Einstein or Dirac. Perhaps he is tall and lanky, with unruly black hair, wearing a grey sweat-shirt emblazoned with a cartoon picture of Schrodinger's cat. Or maybe he wears a three-piece suit; such an incongruity would appeal to his sense of humor.

You were there when they first met. Perhaps you even introduced them, in the hopes of seeing sparks fly. If so, you were disappointed, since their conversation had quickly shifted to another language, a language of Hilbert spaces and contravariant derivatives. Perhaps the very language, you muse, of the Word spoken in the Beginning, before the world began.

But sparks indeed flew, could you but have seen. And one of them had caught fire.

"I came," you say, "as soon as I could."

The younger scientist—perhaps his name is David?—takes your hand and shakes it vigorously. "Yes, yes, yes, yes," he says, "I knew you would. I trust you are ready to see something, well—" he grins, "Earth shaking?"

"What do you know about guts?" says the older scientist.

"Yes," you say, speaking to the scientist whose name is perhaps David, and "GUTs? Grand Unification Theories? Just the barest bones," you say to the other.

"But you do know that the quantum vacuum is actually full of energy?"

she asks, in her slightly British accent. "That, according to quantum mechanics, even empty space must have a 'zero point energy'?"

"Alive with virtual particles," the other interjects, "bursting with the energies of creation; constantly afroth and aboil with the boundless, countless, infinite dance of creation and annihilation below the Heisenberg limit."

"Yes," you say, slowly. You've tried to understand quantum mechanics before. Somehow, though, the vital essence has always managed to elude you. "But it's not real energy, is it?"

"Indeed," she says, "most respectable" (she pronounces the word as if it were somehow dirty) "physicists will tell you that zero-point energy is just a mathematical artifact."

"A figment of the formalism, or so goes the conventional wisdom," he says. "But it's there, nonetheless."

"Maybe," she says dryly, "we should show the apparatus."

"Yes, of course. This way." He turns and walks with a bounce across the room, not even looking to see if you are behind him. You follow him into an adjoining room where a large, complicated piece of experimental apparatus fills most of the available space. "What do you think?"

You hate to admit it, but all physics experiments look alike to you. A shiny stainless-steel vacuum chamber, insulated storage tanks of liquid nitrogen and helium, racks of digital meters, an oscilloscope or two, with brightly colored wires strung all about and the ubiquitous computer sitting in front. "Very pretty," you say, hoping he won't notice your indifference. Experimenters all think that their apparatuses are beautiful. "What is it?"

"A device to extract energy from the vacuum," she says.

"What?"

"An endless energy source," he says. "A perpetual motion machine, if you will."

"Oh." You are impressed. "Does it work?"

The two scientists look at each other. David sighs. "We haven't tried it."

"Why not?"

"There is a question we disagree about, and we thought we'd ask your opinion," Celia says, slowly. For a moment you think this is funny; there is no way that you could hope to answer a question that they could not. Then it seems less funny, then not funny at all. So you hold your silence. "A philosophical question: if we take energy out of the vacuum, what do we have left?"

"Nothing!" he interjects, barely waiting for her to finish the question. "That's the symmetry of the vacuum. Since the energy is infinite, no

matter how much energy is extracted there is still an infinite amount left."

"So goes conventional wisdom," she replies softly. "But the infinity is a renormalized infinity, and the only thing of importance is differences in energy. If we remove energy, what is left must be a vacuum with lower energy."

"Therefore, if we can extract energy, the physical vacuum must be a false vacuum."

She makes this pronouncement seem portentous, as if it were the most important thing in the world. "True vacuum?" you say. "False vacuum?"

"Right," she says. "Basically, a 'true vacuum' is, by definition, the lowest energy state of empty space. If you put anything into it—remember, mass has energy!—the energy must increase, and it's no longer the true vacuum."

You plop yourself down on a lab stool, a spidery metal thing with a round metal seat, slickly enameled in nondescript light brown. Through your jeans you feel it cool against your buttocks. You swivel slightly, back and forth, like a compass needle uncertain of true north.

"The GUTS theory postulates that when the universe was young there existed a vacuum that was just as empty of matter, but had higher energy. This 'false' vacuum decayed into our 'true' vacuum by a process we call spontaneous breaking of symmetry."

Her colleague leans back against a rack of equipment, smiling slightly. He seems willing to let her do the explaining. She glances at her watch. "We don't have a whole lot of time, so please pay careful attention."

"Here's an example. Consider a beaker of perfectly pure liquid water. The water has perfect symmetry, which means if you start from a water molecule, you have just as much likelihood of finding another water molecule going in one direction as any other. Now, cool the water down. Cool it past the freezing point, and keep cooling. If it's really pure, it won't freeze. Instead, it supercools. That's because ice has lower symmetry than liquid water: all directions are not the same. Some directions are along the crystal axis, others aren't. Since pure water doesn't have any way to 'pick' a preferred direction to orient the crystals, it can't crystallize.

"Now add a seed crystal. One little seed of ice, no matter how tiny, and whamo! Suddenly the whole mass of water crystallizes, releasing energy in the process. Explosive crystallization, it's called."

"That's symmetry breaking."

"Now, symmetries exist in empty space as well, although a bit more abstract ones. According to GUTs, the big bang itself was caused by symmetry breaking. In the beginning, the universe was unthinkably small, and unimaginably hot, but empty. Everything was supersym-

metric, all the four forces were the same, and all particles were alike. The universe cooled, and then supercooled. Now the supersymmetric vacuum wasn't the true vacuum any more, but a false vacuum. Nobody knows what triggered the crystallization, but suddenly it happened, and the universe flipped over into one of the lower energy states.

"A lot of energy was released. Everything that is, was created from that explosive transition to a lower energy vacuum."

"Oh," you say, since you can't think of anything else.

"Sometimes I dream of it," she says. "Perhaps before the big bang, there were intelligent creatures in the universe. What they were like we couldn't possibly imagine. Their world was hot, and dense, and tiny; their entire universe would have been smaller than the point of a pin, and they would have lived a trillion generations in the shortest time we can measure. Perhaps one of them realized that the vacuum they were living in was a false vacuum, and that they could create energy from nothing. Perhaps one of them tried it. All it would have taken is one seed, no matter how small. . . ."

Your head is spinning, trying to imagine little tiny scientists before the big bang. You picture them as something like ants, but smaller, and moving so fast that they're like blurs. And hot, don't forget hot. You give up trying to picture it, and go back to listening. Now she is saying something about cubic potentials, comparing the universe to a marble on top of a hill—if the marble is right exactly at the top, it doesn't know which way to roll.

"The question is," she continues, "if energy can be extracted from the vacuum, why doesn't it happen spontaneously, all by itself? The answer has to be, because some symmetry forbids it. But if that symmetry is broken. . . ."

"Since the big bang, the universe has cooled a lot. Perhaps our vacuum is no longer the lowest energy state. If the symmetry is broken, all the energy of the vacuum would be released at once. It would be the end, not only of the Earth, but of the universe as we know it.

"And now David, here, wants to do exactly that."

"As it turns out, her worries are pointless," he says. "There are plenty of energetic objects in the universe that would trip such a transition. Quasars, black holes, Seyfert galaxies. If the universe were a false vacuum, it would have transitioned billions of years ago."

"Have you ever wondered about the Fermi paradox?" she asks. "How it is that we've never seen any signs of other intelligent life in the universe? I can tell you the answer. If any alien civilizations much more advanced than ours existed, they would have already found the secret to extracting vacuum energy. Sooner or later, they'd try it, and,

whammo!, that's the end of the universe. So the universe wouldn't exist, unless we're the first."

You notice that they are both waiting for you to say something. You scuffle your feet against the rough concrete floor. You're beginning to figure out why they called you here, and are desperately trying to think of what to say. "So you have cold feet? You want me to tell you whether you should do the experiment?"

"No," he tells you. "We already have started the experiment." He gestures at a digital read-out. "I turned it on when you first walked in the door. The field is building up now. When it hits ten thousand tesla, the generator is programmed to flip on automatically." You look at the LED indicator. 9.4, it tells you, in a cheerful cherry glow.

"But," says the other.

"But?" you say. David takes your hand, and wraps it around the handle of a switch, a large old-fashioned knife switch, the kind that you privately think of as a "Frankenstein switch." You briefly pretend that you are the obsessed doctor, with life and death subjugated to your power. You've watched too many old monster movies, you think. "This turns it off?"

"In a matter of speaking," he says.

"I doubt anybody else will reproduce what we found," she says. "This may sound like boasting, but it took a few pretty radical insights—and more than a bit of luck—and it's not at all the direction that other theoreticians are looking. Not the idea of getting energy from the vacuum—plenty of people could think of that. It's our way to do it that's the trick."

"I disagree. What one person discovers, no matter now esoteric, another will duplicate. Maybe not for a long time, maybe not in our lifetimes, but sooner or later, it will happen."

She smiles. "Again, it's a question of philosophy. I've been playing the game long enough to know that real science doesn't work the way most people picture. It's not like making a map, unless you think of it as creating the land as we map it. The very shape of science is created by the scientists who make it. We think in their metaphors; we see what they chose to look at. If we let go of this discovery, it won't be duplicated in our lifetimes, and by then the flow of science will be elsewhere."

"In any case," he says, "there isn't enough money in the grant for us to do it again."

"The switch you're holding breaks the circuit in the superconducting magnets. There's about a thousand amps running through the coils now. Quench the magnet and the superconductors heat up, transition back into ordinary metal. In other words, they become resistors. All that current... it'll create a lot of heat. Throw that switch, and ten million dollars worth of equipment melts into a puddle of slag."



"Not to worry too much, though," Celia adds cheerfully. "It's only grant money."

Suddenly your lips are dry. You run the tip of your tongue over them. "And you want me to . . ."

"We've agreed on this much," she says, exasperated. "If you stop the experiment, we'll abide by your decision. We won't publish. Nor even hint."

"But why me?" you ask. "Why not bring in an expert?"

"We are the experts," he says. "What we need is somebody from outside, somebody with an unbiased opinion."

"Don't be silly," she says, speaking to you. "We wanted somebody who *couldn't* understand the details. If we called in a bunch of experts, do you think they could possibly keep it secret, after?"

"And besides," he adds, "committees are always conservative. We all know what they'd say: wait, let's study it some more. Well, damn, we've *already* studied it. If she'd told me we need to have a committee to discuss it, I'd have just snuck in one midnight and run it myself. No, we had to do it this way. Whatever you decide, that's it. No dithering. No second thoughts. Either we do it, or we don't."

"If I'm right," he continues, "then the stars are ours. The universe is ours. Humanity will be immortal. When the sun burns out, we'll create our own suns. We will have all the energy of creation at our fingertips."

"And if he's wrong," she says, "then this is the end. Not just the end of us. The end of the universe."

"Except that I'm not wrong."

"Maybe not. And, if you are, we'll never know."

"Still, I'd risk it all. This is the key to the universe. It's worth the risk. It's worth any risk."

She looks back at you. "So there you have it."

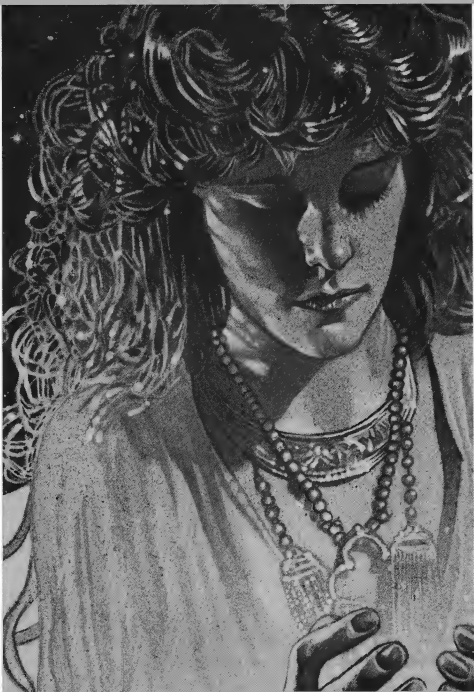
He raises an eyebrow. "On the one hand, infinity. On the other, the end of everything."

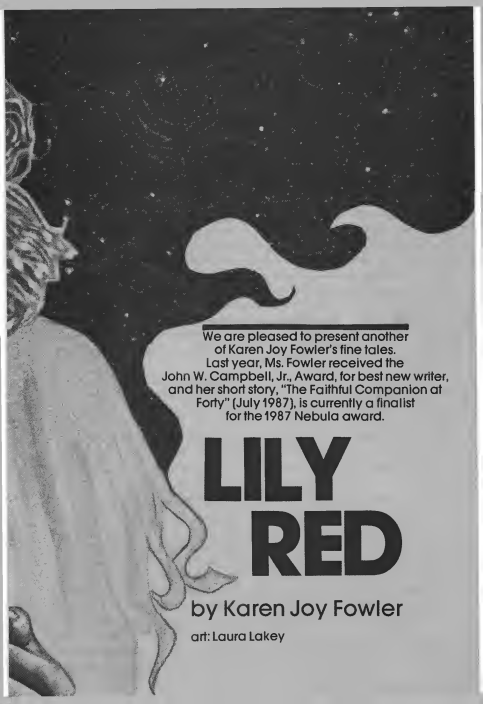
He looks over at the digital readout, and your eye follows his. As you watch, it flicks from 9.8 to 9.9. The handle of the switch is warm, faintly slick with sweat. In your hand it seems almost to vibrate.

She looks at you. You look at him. He looks at the switch. You look at her. They both look at you.

"You'd better decide fast," he says, softly. ●







We are pleased to present another  
of Karen Joy Fowler's fine tales.

Last year, Ms. Fowler received the  
John W. Campbell, Jr., Award, for best new writer,  
and her short story, "The Faithful Companion at  
Forty" (July 1987), is currently a finalist  
for the 1987 Nebula award.

# LILY RED

by Karen Joy Fowler

art: Laura Lakey

One day Lily decided to be someone else. Someone with a past. It was an affliction of hers, wanting this. The desire was seldom triggered by any actual incident or complaint, but seemed instead to be related to the act or prospect of lateral movement. She felt it every time a train passed. She would have traded places instantly with any person on any train. She felt it often in the car. She drove onto the freeway that ran between her job and her house and she thought about driving right past her exit and stopping in some small town wherever she happened to run out of gas and the next thing she knew, that was exactly what she had done.

Except that she was stopped by the police instead. She was well beyond the city; she had been through several cities, and the sky had darkened. The landscape flattened and she fell into a drowsy rhythm in which she and the car were both passengers in a small, impellent world defined by her headlights. It was something of a shock to have to stop. She sat in her car while the police light rotated behind her and at regular intervals she watched her hands turn red on the steering wheel. She had never been stopped by the police before. In the rear-view mirror she could see the policeman talking to his radio. His door was slightly open; the light was on inside his car. He got out and came to talk to her. She turned her motor off. "Lady," he said and she wondered if policemen on television always called women *lady* because that was what real policemen did, or if he had learned this watching television just as she had. "Lady, you were flying. I clocked you at eighty."

*Eighty.* Lily couldn't help but be slightly impressed. She had been twenty-five miles per hour over the limit without even realizing she was speeding. It suggested she could handle even faster speeds. "Eighty," she said contritely. "You know what I think I should do? I think I've been driving too long and I think I should just find a place to stay tonight. I think that would be best. I mean, eighty. That's too fast. Don't you think?"

"I really do." The policeman removed a pen from the pocket inside his jacket.

"I won't do it again," Lily told him. "Please don't give me a ticket."

"I could spare you the ticket," the policeman said, "and I could read in the paper tomorrow that you smashed yourself into a retaining wall not fifteen miles from here. I don't think I could live with myself. Give me your license. Just take it out of the wallet, please. Mattie Drake runs a little bed and breakfast place in Two Trees. You want the next exit and bear left. First right, first right again. Street dead-ends in Mattie's driveway. There's a sign on the lawn. *Mattie's*. Should be all lit up this time of night. It's a nice place and doesn't cost too much in the off season." He handed Lily back her license and the ticket for her to sign. He took his copy. "Get a good night's sleep," he said and in the silence she heard

his boots scattering gravel from the shoulder of the road as he walked away.

She crumpled the ticket into the glove compartment and waited for him to leave. He shut off the rotating light, turned on the headlights and outwaited her. He followed all the way to the next exit. So Lily had to take it.

She parked her car at the edge of Mattie's lawn. Moths circled the lights on the sign and on the porch. A large white owl slid through the dusky air, transformed by the lights beneath it into something angelic. A cricket landed on the sleeve of her linen suit. The sprinklers went on suddenly; the watery hiss erased the hum of insects, but the pathway to the door remained dry. Lily stood on the lighted porch and rang the bell.

The woman who answered wore blue jeans and a flannel shirt. She had the angular hips of an older woman, but her hair showed very little gray, just a small patch right at the forehead. "Come in, darling," she said. There was a faint southern softness in her voice. "You look tired. Do you want a room? Have you come to see the caves? I'm Mattie."

"Yes, of course," Lily told her. "I need a room. I met some people who were here last year. You really *have* to see these caves, they told me."

"I'll have Katherine pack you a lunch if you like," Mattie offered. "It's beautiful hiking weather. You won't get nearly so hot as in the summer. You can go tomorrow."

Lily borrowed the phone in the living room to call David. It sat on a small table between a glass ball with a single red rosebud frozen inside and a picture of the Virgin praying. The Virgin wore a blue mantilla and appeared to be suspended in a cloudless sky. The phone had a dial which Lily spun. She was so used to the tune their number made on the touch phone at work that she missed hearing it. She listened to the answering machine, heard her voice which sounded nothing like her voice, suggesting that she leave a message. "I'm in Two Trees at Mattie's bed and breakfast," she said. "I had this sudden impulse to see the caves. I may stay a couple of days. Will you call Harriet and tell her I won't be in tomorrow? It's real slow. There won't be a problem." She would have told David she missed him, but she ran out of time. She would have only said it out of politeness anyway. They had been married nine years. She would miss him later. She would begin to miss him when she began to miss herself. He might be missing her, too, just about then. It would be nice if all these things happened at the same time.

She took the key from Mattie, went upstairs, used the bathroom at the end of the hall, used someone else's toothbrush, rinsing it out repeatedly afterwards, unlocked her door, removed all her clothes, and cried until she fell asleep.

In the morning Lily lay in bed and watched the sun stretch over the

quilt and onto the skin of her arms and her hands. She looked around the room. The bed was narrow and had a headpiece made of iron. A pattern of small pink flowers papered the walls. On the bookcase next to the bed a china lady held a china umbrella with one hand and extended the other, palm up, to see if the rain had stopped. There were books. *Beauty's Secret*, one of them said on the spine. Lily opened it, but it turned out to be about horses.

A full length mirror hung on the back of the bedroom door. Lily didn't notice until the sunlight touched its surface, doubling in brightness. She rose and stood in front of it, backlit by the sunny window, frontlit by the mirror so that she could hardly see. She leaned in closer. Last night's crying had left her eyes red and the lids swollen. She looked at herself for a long time, squinting and changing the angle. Who was she? There was absolutely no way to tell.

The smell of coffee came up the stairs and through the shut door. Lily found her clothes on the desk chair where she had left them. She put them on: stockings, a fuchsia blouse, an eggshell business suit, heels. She used the bathroom, someone else's hairbrush as well as someone else's toothbrush, and came downstairs.

"You can't go hiking dressed like that," Mattie told her and, of course, Lily couldn't. "You have nothing else? What size shoe do you wear? A six and a half? Six? Tiny little thing, aren't you? Katherine might have something that will do." She raised her voice. "Katherine? Katherine!"

Katherine came through the doorway at the bottom of the stairs, drying her hands on a dish towel. She was somewhat younger than Mattie though older than Lily, middle forties, perhaps, and heavier, a dark-skinned woman with straight black hair. On request she produced jeans for Lily, a sleeveless t-shirt, a red sweatshirt, gray socks, and sneakers. Everything was too big for Lily. Everything was wearable.

Mattie took her through the screen door and out the back porch after breakfast. Beyond the edge of Mattie's sprinklers, the lawn stopped abruptly at a hill of sand and manzanita. Mattie had stowed a lunch and a canteen in a yellow daypack. She began to help Lily into it. "You go up," Mattie said. "All the way up. And then down. You can see the trail from the other side of the fence. Watch for rattlers. You hiked much?" Lily was having trouble slipping her left arm under the second strap. It caught at the elbow, her arm pinned behind her. Mattie eased the pack off and began again.

"Oh, yes," Lily assured her. "I've hiked a lot." Mattie looked unconvinced. "I'm a rock-climber," said Lily. "That's the kind of hiking I'm used to. Crampons and ropes and mallets. I don't usually wear them on my back. I wear them on my belt. I take groups out. Librarians and school teachers and beauticians. You know."

"Well, there's just a trail here," said Mattie doubtfully. "I don't suppose you can get into trouble as long as you stay on the trail. Your shoes don't really fit well. I'm afraid you'll blister."

"I once spent three days alone in the woods without food or shelter and it snowed. I was getting a merit badge." The daypack was finally in place. "Thank you," Lily said.

"Wait here. I'm going to get some moleskin for your feet. And I'm going to send Jep along with you. Jep has a lot of common sense. And Jep knows the way. You'll be glad of the company," Mattie told her. She disappeared back into the house.

"It was in Borneo," Lily said softly, so that Mattie wouldn't hear. "You want to talk about blisters. You try walking in the snows of Borneo."

Jep turned out to be a young collie. One ear flopped over in proper collie fashion. One pointed up like a shepherd's. "I've heard some nice things about you," Lily told him. He followed Lily out to the gate and then took the lead, his tail and hindquarters moving from side to side with every step. He set an easy pace. The trail was unambiguous. The weather was cool when they started. In an hour or so, Lily removed her sweatshirt and Jep's tongue drooped from his mouth. Everyone felt good.

The sun was not yet overhead when Lily stopped for lunch. "Eleven twenty-two," she told Jep. "Judging solely by the sun." Katherine had packed apple juice and cold chicken and an orange with a seam cut into the peel and a chocolate Hostess cupcake with a cream center for dessert. Lily had not seen a cupcake like that since she had stopped taking a lunch to school. She sat with her back against a rock overhang and shared it with Jep, giving him none of the cream filling. There was a red place on her left heel and she covered it with moleskin. Jep lay on his side. Lily felt drowsy. "You want to rest a while?" she asked Jep. "I don't really care if we make the caves and you've seen them before. I could give a damn about the caves, if you want to know the truth." She yawned. Somewhere to her left a small animal scuttled in the brush. Jep hardly lifted his head. Lily made a pillow out of Katherine's red sweatshirt and went to sleep, leaning against the overhang.

When she woke, the sun was behind her. Jep was on his feet, looking at something above her head. His tail wagged slowly and he whined once. On the ground, stretching over him and extending several more feet, lay the shadow of a man, elongated legs, one arm up as though he were waving. When Lily moved away from the overhang and turned to look, he was gone.

It unsettled her. She supposed that a seasoned hiker would have known better than to sleep on the trail. She turned to go back to Mattie's and had only walked a short way, less than a city block, when she saw something she had missed coming from the other direction. A woman

was painted onto the flat face of a rock which jutted up beside the trail. The perspective was somewhat flattened, and the image had been simplified, which made it extraordinarily compelling somehow. Especially for a painting on a rock. When had Lily ever seen anything painted on a rock other than "Kelly loves Eric" or "Angela puts out"? The woman's long, black hair fell straight down both sides of her face. Her dark eyes were half-closed; her skin was brown. She was looking down at her hands which she held cupped together and she was dressed all in red. Wherever the surface of the rock was the roughest, the paint had cracked and one whole sleeve had flaked off entirely. Lily leaned down to touch the missing arm. There was a silence as if the birds and the snakes and the insects had all suddenly run out of breath. Lily straightened and the ordinary noises began again. She followed Jep back down the trail.

"I didn't get to the caves," she admitted to Mattie. "I'll go again tomorrow. But I did see something intriguing. The woman painted on the rock. I'm used to graffiti, but not this kind. Who painted her?"

"I don't know," said Mattie. "She's been here longer than I have. We get a lot of farm labor through, seasonal labor, you know. I always thought she looked Mexican. And you see paintings like that a lot in Mexico. Rock Madonnas. I read somewhere that the artists usually use their own mother's face for inspiration. The writer said you see these paintings by the roadside all the time and that those cultures in which men idolize their own mothers are the most sexist cultures in the world. Interesting article. She's faded a lot over the years."

"You don't often see a Madonna dressed in red," Lily said.

"No, you don't," Mattie agreed. "Blue usually, isn't it?" She helped Lily out of the pack. "Did you get blisters? I worried about you."

"No," said Lily, although the spot on her heel had never stopped bothering her. "I was fine."

"You know who might be able to tell you about the painting? Allison Beale. Runs the county library, but lives here in Two Trees. She's been here forever. You could run over tonight and ask her if you like. I'll give you the address. She likes company."

So Lily got back in her car with Allison Beale's address in her pocket and a map to Allison's house. She was supposed to go there first and then pick up some dinner at a little restaurant called The Italian Kitchen, but she turned left instead of right and then left again to a bar she'd noticed on her way into Two Trees, with a neon martini glass tipping in the window. The only other customer, a man, stood with his back to her, studying the jukebox selections, but choosing nothing. Lily sat at the counter and ordered a margarita. It came without salt and the ice floated inside it uncrushed. "You're the lady staying with Mattie," the bartender informed her. "My name is Egan. Been to the caves?"



"Lily," Lily said. "I don't like caves. I can get lost in the supermarket. Wander for days without a sweater in the frozen foods. I'm afraid to think what would happen to me in a cave."

"These caves aren't deep," the bartender said, wiping the counter in front of her with the side of his hand. "Be a shame to come all the way to Two Trees and not even see the caves."

"Take a native guide," the other man suggested. He had come up behind her while she ordered. She slid around on the bar stool.

"Henry," he told her. He wore a long, black braid and a turquoise necklace. The last time Lily had seen him he had been dressed as a policeman. She'd had no sense of his hair being long like this.

"You're an Indian," Lily said.

"Can't put anything past you." He sat down on the stool next to hers. Lily guessed he was somewhere in his thirties, just about her own age. "Take off your wedding ring and I'll buy you a drink."

She slid the ring off her finger. Her hands were cold and it didn't even catch at the knuckle. She laid it on the napkin. "It's off," she said. "But that's all I'm taking off. I hope we understand each other."

The bartender brought her a second margarita. "The first one was on the house," he said. "Because you're a guest in Two Trees. The second one is on Henry. We'll worry about the third when you get to it."

Lily got to it about an hour later. She could easily have done without it. She was already quite drunk. She and Henry and the bartender were still the only people in the bar.

"It just intrigued me, you know?" she said. The bartender stood draped across the counter next to her. Henry leaned on one elbow. Lily could hear that she was slurring her words. She tried to sharpen them. "It seemed old. I thought it intrigued me enough to go talk to the librarian about it, but I was wrong about that." She laughed and started on her third drink. "It should be restored," she added. "Like the Sistine Chapel."

"I can tell you something about it," the bartender said. "I can't swear any of it's true, but I know what people say. It's a picture of a miracle." He glanced at Henry. "Happened more than a hundred years ago. It was painted by a man, a local man, I don't think anyone remembers who. And this woman appeared to him one day, by the rock. She held out her hands, cupped, just the way he drew them, like she was offering him something, but her hands were empty. And then she disappeared again."

"Well?" said Lily.

"Well, what?" Henry answered her. She turned back to him. Henry was drinking something clear from a shot glass. Egan kept it filled; Henry never asked him, but emptied the glass several times without appearing to be affected. Lily wondered if it might even be water.

"What was the miracle? What happened?"

There was a pause. Henry looked down into his drink. Egan finally spoke. "Nothing happened that I know of." He looked at Henry. Henry shrugged. "The miracle was that she *appeared*. The miracle was that *he* turned out to be the kind of person something like this happened to." Lily shook her head in dissatisfaction. "It's kind of a miracle the painting has lasted so long, don't you think?" Egan suggested. "Out there in the wind and the sand for all those years?" Lily shook her head again.

"You are a hard woman," Henry told her. He leaned closer. "And a beautiful one."

It made Lily laugh at him for being so unoriginal. "Right." She stirred her drink with her finger. "How do Indians feel about their mothers?"

"I loved mine. Is that the right answer?"

"I'll tell you what I've always heard about Indians." Lily put her elbows on the counter between them, her chin in her hands.

"I bet I know this." Henry's voice dropped to a whisper. "I bet I know exactly what you've always heard."

"I've heard that sexual technique is passed on from father to son." Lily took a drink. "And you know what I've always thought? I've always thought a lot of mistakes must be perpetuated this way. A culture that passed on sexual technique from *mother* to son would impress me."

"So there's a middle man," said Henry. "Give it a chance. It still could work." The phone rang at the end of the bar. Egan went to answer it. Henry leaned forward, staring at her intently. "You have incredible eyes," he said and she looked away from him immediately. "I can't decide what color they are."

Lily laughed again, this time at herself. She didn't want to respond to such a transparent approach, but she couldn't help it. The laugh had a hysterical edge. She got to her feet. "Take off your pants and I'll buy you a drink," she said and enjoyed the startled look on Henry's face. She held onto the counter, brushing against him by accident on her way to the back of the bar.

"End of the counter and left," the bartender told her, hanging up the phone. She gripped each stool and spun it as she went by, hand over hand, for as long as they lasted. She made it the last few steps to the bathroom on her own. The door was marked with the silhouette of a figure wearing a skirt. Lily fell through it and into the stall. On one side of her "Brian is a fox" was scratched into the wall. On the other were the words "Chastity Chews." A picture accompanied the text, another picture of a woman, presumably chewing chastity. She had many arms like Kali and a great many teeth. A balloon rose from her mouth. "Hi," she said simply.

Lily spent some time at the mirror, fixing her hair. She blew a breath into her hand and tried to smell it, but all she could smell was the

lavatory soap. She supposed this was good. "I'm going home," she announced, back in the bar. "I've enjoyed myself."

She felt around in her purse for her keys. Henry held them up and rang them together. "I can't let you drive home. You hardly made it to the bathroom."

"I can't let you take me. I don't know you well enough."

"I wasn't going to suggest that. Looks like you have to walk."

Lily reached for the keys and Henry closed his fist about them. "It's only about six blocks," he said.

"It's dark. I could be assaulted."

"Not in Two Trees."

"Anywhere. Are you kidding?" Lily smiled at him. "Give me the keys. I already have a blister."

"I could give you the keys and you could hit a tree not two blocks from here. I don't think I could live with myself. Egan will back me up on this." Henry gestured with his closed fist towards the bartender.

"Damn straight," said Egan. "There's no way you're driving home. You'll be fine walking. And, anyway, Jep's come for you." Lily could see a vague doggy shape through the screen door out of the bar.

"Hello, Jep," Lily said. The figure through the screen wagged from side to side. "All right." Lily turned back to the men at the bar. "All right," she conceded. "I'm walking. The men in this town are pitiless, but the dogs are fine. You've got to love the dogs."

She swung the screen door open. Jep backed out of the way. "Tomorrow," Egan called out behind her, "you go see those caves."

Jep walked beside her on the curbside, between her and the street. Most of the houses were closed and dark. In the front of one a woman sat on a porch swing, holding a baby and humming to it. Some heartbreak song. By the time Lily reached Mattie's she felt sober again.

Mattie was sitting in the living room. "Egan called," she said. "I made you some tea. I know it's not what you think you want, but it has some herbs in it, very effective against hangover. You won't be sorry you drank it. It's a long hike to the caves. You want to be rested."

Lily sat on the couch beside her. "Thank you. You're being very good to me, Mattie. I don't deserve it. I've been behaving very badly."

"Maybe it's just my turn to be good," said Mattie. "Maybe you just finished your turn. Did you ever get any dinner?"

"I think I may have had some pretzels." Lily looked across the room to the phone, wondering if she were going to call David. She looked at the picture of the Madonna. It was not a very interesting one. Too sweet. Too much sweetness. "I should call my husband," she told Mattie and didn't move.

"Would you like me to leave you alone?"

"No," said Lily. "It wouldn't be that sort of call. David and I, we don't have personal conversations." She realized suddenly that she had left her wedding ring back at the bar on the cocktail napkin beside her empty glass.

"Is the marriage a happy one?" Mattie asked. "Forgive me if I'm prying. It's just—well, here you are."

"I don't know," said Lily.

Mattie put her arm around Lily and Lily leaned against her. "Loving is a lot harder for some people than for others," she said. "And being loved can be hardest of all. Not for you, though. Not for a loving woman like you."

Lily sat up and reached for her tea. It smelled of camomile. "Mattie," she said. She didn't know how to explain. Lily felt that she always appeared to be a better person than she was. It was another affliction. In many ways Mattie's analysis was true. Lily knew that her family and friends wondered how she lived with such a cold, methodical man. But there was another truth, too. Often, Lily set up little tests for David, tests of his sensitivity, tests of his commitment. She was always pleased when he failed them, because it proved the problems between them were still his fault. Not a loving thing to do. "Don't make me out to be some saint," she said.

She slept very deeply that night, dreaming on alcohol and tea, and woke up late in the morning. It was almost ten before she and Jep hit the trail. She watched for the painting on her way up this time, stopping to eat an identical lunch in a spot where she could look at it. Jep sat beside her, panting. They passed the rock overhang where she had eaten lunch the day before, finished the climb uphill and started down. The drop-off was sharp; the terrain was dusty and uninviting, and Lily, who was tired of walking uphill, found it even harder to descend. When the trail stopped at a small hollow in the side of a rock, she decided she would rest and then go back. Everyone else might be excessively concerned that she see the caves, but she couldn't bring herself to care. She dropped the daypack on the ground and sat beside it. Jep raised his collie ear and wagged his tail. Turning, Lily was not at all surprised to see Henry coming down the hill, his hair loose and hanging to his shoulders.

"So," he said. "You found the caves without me."

"You're kidding." Lily stood up. "This little scrape in the rock? This can't be the famous Two Trees caves. I won't believe it. Tell me there are real caves just around the next bend."

"You need something more?" Henry asked. "This isn't enough? You are a hard woman."

"Oh, come on." Lily flicked her hair out of her eyes. "Are you telling me people come from all over to see this?"

"It's not the caves." Henry was staring at her. She felt her face reddening. "It's what happens in the caves." He moved closer to her. "It's what happens when a beautiful woman comes to the caves." Lily let herself look right at his eyes. Inside his pupils, a tiny Lily looked back out.

"Stay away from me," said Lily. Was she the kind of woman who would allow a strange man in a strange place to kiss her? Apparently so. Apparently she was the kind of woman who said no to nothing now. She reached out to Henry; she put one hand on the sleeve of his shirt, one hand on his neck, moved the first hand to his back. "I gave you my car and my wedding ring," she told him. "What do you want now? What will satisfy you?" She kissed him first. They dropped to their knees on the hard floor of the cave. He kissed her back.

"We could go somewhere more comfortable," said Lily.

"No," said Henry. "It has to be here."

They removed their clothes and spread them about as padding. The shadow of the rock lengthened over them. Jep whined once or twice and then went to sleep at a safe distance. Lily couldn't relax. She let Henry work at it. She touched his face and kissed his hand. "Your father did a nice job," she told him, moving as close to his side as she could, holding herself against him. "You do that wonderfully." Henry's arm lay underneath her back. He lifted her with it, turning her so that she was on top of him, facing down. He took hold of her hair and pulled her face to his own, put his mouth on her mouth. Then he let her go, staring at her, holding the bits of hair about her face in his hands. "You are so beautiful," he said and something broke inside her.

"Am I?" She was frightened because she suddenly needed to believe him, needed to believe that he might love her, whoever she was.

"Incredibly beautiful."

"Am I?" Don't say it if you don't mean it, she told him silently, too afraid to talk and almost crying. Don't make me want it if it's not there. Please. Be careful what you say.

"Incredibly beautiful." He began to move again inside her. "So beautiful." He watched her face. "So beautiful." He touched her breasts and then his eyes closed and his mouth rounded. She thought he might fly apart, his body shook so and she held him together with her hands, kissed him until he stopped and then kissed him again.

"I don't want to hurt you," Henry said.

It hurt Lily immediately, like a slap. So now she was the sort of woman men said this to. Well, she had no right to expect anything different from a man she didn't even know. She could have said it to him first if she'd thought of it. That would have been the smart thing to do. Nothing would have been stupider than needing him. What had she been thinking of?

"But you will if you have to," she finished. "Right? Don't worry. I'm not making anything of this. I know what this is." She sat up and reached for Katherine's sweatshirt. She was cold and afraid to move closer to Henry. She was cold and she didn't want to be naked any more.

"You sound angry," Henry said. "It's not that I couldn't love you. It's not that I don't already love you. Men always disappoint women. I'm not sure we can escape it."

"Don't be ridiculous," Lily told him sharply. She put her head into the red tent of the sweatshirt and pulled it through. "I should have gotten your sexual history first," she added. "I haven't done this since the rules changed."

"I haven't been with a woman in ten years," Henry said. Lily looked at his face in surprise.

"Before that it was five years," he said. "And before that seven, but that was two at once. That was the sixties. Before that it was fifteen years. And twenty before that. And two. And two. And before that almost a hundred."

Lily stood up, pulling on Katherine's jeans. "I should have gotten your psychiatric history first," she said. The faster she tried to dress, the more difficulties she had. She couldn't find one of Katherine's socks. She was too angry and frightened to look among Henry's clothes. She put on Katherine's shoes without it. "Come on, Jep," she said.

"It can't mean anything," Henry told her.

"It didn't. Forget it." Lily left without the daypack. She hurried up the trail. Jep followed somewhat reluctantly. They made the crest of the hill; Lily looked behind her often to see if Henry was following. He wasn't. She went past the painting without stopping. Jep preceded her through the gate into Mattie's backyard.

Mattie and Katherine were waiting in the house. Katherine put her arms around her. "You went to the caves," Katherine said. "Didn't you? I can tell."

"Of course she did," said Mattie. She stroked Lily's hair. "Of course she did."

Lily stood stiffly inside Katherine's arms. "What the hell is going on?" she asked. She pushed away and looked at the two women. "You *sent* me up there, didn't you? You did! You and Egan and probably Allison Beale, too. Go to the caves, go to the caves. That's all I've heard since I got here. You dress me like some virginal sacrifice, fatten me up with Hostess cupcakes and send me to him. But why?"

"It's a miracle," said Mattie. "You were chosen. Can't you feel it?"

"I let some man pick me up in a bar. He turns out to be a nut." Lily's voice rose higher. "Where's the miracle?"

"Henry chose *you*," said Mattie. "Just like the woman in the painting chose *him*. That's the miracle."

Lily ran up the stairs. She stripped Katherine's clothes off and put her own on. Mattie came and stood in the doorway. Lily walked around her and out of the room.

"Listen to me, Lily," Mattie said. "You don't understand. She chose him and cursed him. He gave you as much as he can give anyone. That's why in the painting the woman's hands are empty. But that's *his* trap. *His* curse. Not yours. When you see that, you'll forgive him. Katherine and Allison and I all forgave him. I know you will, too. A loving woman like you." Mattie reached out, grabbing Lily's sleeve. "Stay here with us. You can't go back to your old life. You won't be *able* to. You've been chosen."

"Look," said Lily. She took a deep breath and wiped at her eyes with her hands. "I wasn't chosen. Quite the opposite. I was picked up and discarded. By a man in his thirties and *not* the same man you slept with. Maybe *you* slept with a god. You go ahead and tell yourself that. What difference does it make? You were still picked up and discarded." She shook loose of Mattie and edged down the stairs. She expected to be stopped, but she wasn't. At the front door, she turned. Mattie stood on the landing behind her. Mattie held out one hand. Lily shook her head. "I think you're pretty pathetic, if you want to know the truth. I'm not going to tell myself a lot of lies or listen to yours. I know who I am. I'm going. I won't be back. Don't expect me."

Her car waited at the front of the house, just where she had parked it the first night. She ran from the porch. The keys were inside. Left and left again, past the bar where the martini glass tipped darkly in the window, and onto the freeway. Lily accelerated way past eighty and no one stopped her. The foothills sped by and became cities. When she felt that she was far enough away to be safe from small town Madonnas and men who were cursed to endure centuries of casual sex with as many loving women as possible, which was damn few, in fact, if you believed the numbers they gave you, she slowed down. She arrived home in the early evening. As she was walking in the door, she noticed she was wearing her wedding ring.

David was sitting on the couch reading a book. "Here I am, David," Lily said. "I'm here. I got a speeding ticket. I never looked to see how much it was for. I lost my ring playing poker, but I mortgaged the house and won it back. I lost a lot more, though. I lost my head. I'm half-hearted now. In fact, I'm not at all the woman I was. I've got to be honest with you."

"I'm glad you're home," said David. He went back to his book. ●



# THE SKY IS AN OPEN HIGHWAY

by Dave  
Wolverton

Dave Wolverton tells us that "The Sky is an Open Highway" is the first science fiction piece to which he ever set his hand. He assures us, though, that it won't be the last, since there are several more stories he's "just aching" to write. Mr. Wolverton's first novel, *On My Way to Paradise*, will be published later this year by Bantam Books.

art: George Thompson



*Alegria Trujillo was shucking corn for dinner and just lifted her head to gaze at the sunset over the lake when the bomb blew. Her husband Pío was sitting on the porch, singing a funny song about a Padre who trained his dog to bark at fornicators, but then the dog would not stop yapping when the Bishop came to visit. Their daughter, Juana, had gone to the fields to find two more ripe ears of corn, and as Alegria raised her head, wondering what was taking Juana so long, the horizon blazed white.*

*"Look!" she cried, thinking the sun had gone nova.*

*Across the lake, the mountains seemed to wobble, then jump. Kilometers away a curtain of red dust and shattered trees leapt into the sky. The curtain rushed toward her. She realized it would hit, and then a sharp pain lanced through her back and abdomen.*

*Stunned, she rose through the air along with stones and broken trees. Tears of pain streamed down her face, and not twenty meters away she saw the broken body of Juana rise up as if to meet her. Mother of God, I'm going to die! Alegria thought. And though nearly two billion people died with her, she was only one of a handful who had time enough to cry out.*

Dawnlight awakened the Feduwah trees; thin tongues of dark green leaves unfolded from the delicate limbs until branches became plumes. Snakebirds, resting in the crooks of the trees, resented the leaves tickling their butts—the smallest brush of a frond caused them to croak and jump into the sky as if skewered. Abudoh licked his lips, glanced at his chronometer, and stumbled from the hovercraft to urinate.

A stray breeze carried the sound of voices chanting in unison, setting Abudoh's nerves on edge; for a long time he froze in position, turning his head from side to side, testing the air for the snap of a twig, a muffled word, a cough. He heard a rustle up the hill; the shadowy shape of a snakebird careened down the sky, landing in the passenger seat of the hovercraft with a thud. Abudoh watched it struggle to a comfortable position, folding and unfolding its wings as it tried to watch him and investigate the craft at the same time. The task was too much for the reptile, and after a moment it blinked stupidly, hopped to the floor on the driver's side, and settled next to the heating vent.

Abudoh walked back to the hovercraft. The snakebird watched, panting, loose folds of flesh jiggling at its throat. It was dusky white, with a burnt-orange neck and back, and yellow eyes the size of almonds. Abudoh opened the little half door and put a foot next to the reptile to see if it would bite. The snakebird stepped forward, laid its neck, thick as a club, against Abudoh's leg and started trying to push him from the craft. Abudoh grinned, surprised at the strength of its resistance. The

snakebird pushed harder, trembling with the strain as it closed its eyes and wetted the four fingers of lip that drooped at its mouth.

"Ho, snakebird! You're not afraid of nothing, hey?" Abudoh laughed. "You'd better fly away now! There's a bad man coming! Badder than the Devil in hell!"

The snakebird ignored the threats and tried to hold its position. But Abudoh outweighed the stupid reptile by seventy kilos and shoved it to the passenger side of the craft. The snakebird croaked forlornly and settled down.

Abudoh huddled in his hovercraft, his thin gray robe pulled close against the morning cold, and scanned the mists along the skyline as he waited for the *Untouchable* to fall. "When this is over, we will celebrate," he said, patting the snakebird. The round humps of hills were a featureless, slate-gray in the halfdawn. Large, scarlet-winged moths darted among the trees, lighting under the branches to draw sap from the leaves.

The *Untouchable* dropped silently from the clouds, its black hull gleaming dully. Its landing lights were off, and Abudoh was acutely aware of the fact. His stomach tightened at sight of the ship. It wasn't large for an interstellar vessel, yet its sophistication showed in every minute detail: the compactness of the drive; the integrated design that allowed it to be one small, smooth-hulled unit; the inconspicuous retractable turret mounts. Many newer ships were equipped to make planetfall, but the expense was unimaginable. A ship like that would be worth *two* dustball planets like Tabee. Abudoh felt nauseous, wanted to urinate again, and wished the *Untouchable* were gone. But the ship fell slowly and angled down to rendezvous with the hovercraft. Abudoh forced a practiced smile.

The ship landed in front of him with a whisper. There were small pinging sounds as the hot metal contracted, and the hissing of steam as the vegetation beneath the ship touched the hull and withered. A gangplank lowered and Hwang Kwon stepped out, a thin man clad in overalls styled after miner's dress. Behind him wheeled a silver and black security robot.

Abudoh smiled and inspected a week's growth of fine black hair on Kwon's chin. "Why, Master Kwon, you're growing a beard!"

Kwon ran one palm over his face. "Beard? What beard? This is a puppy I'm eating," he said, then broke into a long, genuine laugh.

Abudoh remembered Hakim's instructions: *humor his perversity*. He feigned a laugh, stepped forward, and met Kwon at the bottom of the gangplank with an embrace.

Kwon whispered, "I'm sorry I was late—there were *people* over the hill—a great line of them wearing yellow robes. I picked them up on photo scan."

"I know, I heard them singing. Maruan acolytes. Today is their holy

day. They climb the hills to greet the dawn in celebration of the future," Abudoh said.

"Then they should be of no concern to us," Kwon waved a hand in the Acolytes' direction, as if to make them disappear. "So, did you get the cobahite?"

"Assuredly! Assuredly! It's right over here," he said, leading Kwon to a fallen tree down the hill. Three servoids rolled down the gangplank, bringing a table, chairs, a linen tablecloth. Abudoh looked over his shoulder at them as he walked, but said nothing.

"You're marvelous!" Kwon said. "I don't know how you people do it. With all this pressure—extra patrols in the Net, increased security."

"Yes, the security measures are becoming difficult . . ." Abudoh sighed.

"I don't know how you do it!"

"The Pentat will always deliver. The Net can't stop us, only slow us down. And even that isn't worth their cost."

In the hollow of the rotted tree was a small metal crate. Abudoh heaved it up on one shoulder, grunting. "We got twelve rods—two more than you asked for! Twenty-four kilos and two grams."

"Two grams?"

"One rod was heavy. We got it while it was being sent back for reprocessing," Abudoh said.

"Oh. It's not cracked or anything?"

"Oh no! It's just heavy," Abudoh said, handing the crate to the black and silver security robot for inspection. He held his breath. Hakim had assured him the box was scan-proof, but on a planet like Tabee it was impossible to know the technological resources of a man like Kwon.

"Master, this container has been scan-proofed. I am not able to ascertain its contents," the robot said.

"Yes," Abudoh said hastily, turning his head from side to side, unsure whether to address Kwon or the robot. "It was requisite—in order to get it out of the plant, with the increased security. There are scanners everywhere."

"Would you like it opened for examination?" the robot asked Kwon.

"Is there cobahite in the box, Byron?"

"The box is scan-proof," the robot repeated.

"Is it probable there is cobahite in the box?" Kwon asked.

"It has the correct mass," the robot answered. "Would you like it to be opened for examination?"

Kwon glanced at the box; opening it would be time-consuming and posed the risk of radiation contamination. He looked up at Abudoh, holding his eye for a moment. "That won't be necessary, Byron, I think. The Pentat wouldn't let me down."

The robot carried the crate to one of the servoids that waited by the

ship. Covered containers and dishes were being arranged on the table. Apparently Kwon had decided to dine.

"Would you like to join me for breakfast?" Kwon asked. Abudoh looked at his chronometer and considered. He wouldn't be able to risk leaving the shelter of the valley for twenty-eight minutes—a photo-satellite was in fly-over.

"I would be honored."

"Fine!" Kwon said. "You'll love it! Oh, here's your pay." He handed him a credit disk. "You'll find a bonus."

Abudoh pocketed the disk without inspection. They headed up the small rise to the tables. "Perhaps on the next shipment you should give us more notice. It's very difficult these days, to get an order out so quickly—"

"Of course." Kwon answered. "In four or five weeks I'll need another shipment. Twenty to thirty kilos, I'd expect."

"We'll begin working on it."

"I appreciate that. You don't know how much I appreciate that. It will go far to alleviate my people's fuel problem. My people will be very thankful."

"I suppose they will," Abudoh said. "And thank you for the money. It will go far to alleviate the curse of the empty hand that has plagued *my* people."

Kwon laughed. "I suppose so. Let's not talk business."

Abudoh nodded; there was a moment of uncomfortable silence, then Kwon filled the gap.

"So tell me, are you married?"

Abudoh wondered if Kwon were up to something, propositioning him, perhaps? Kwon smiled, a bare upturn of the lips. Abudoh was unable to read the expression; Kwon's body language was too foreign, and Abudoh didn't know what planet he'd come from. He decided it was a harmless question. "Oh, no. I'm a conscript. A slave. I have no wives. But I have a woman; a woman I love."

"Ah, you sold yourself?" Kwon asked.

"No. My parents sold me to the Witham Corporation when I was eight," Abudoh answered.

"Your parents? My God, the barbarians!"

Abudoh chuckled at hearing such a line, and wondered if Kwon even knew what a barbarian was. "It's legal. It was just my parents' way of dealing with the curse of the empty hand."

They reached the table, which was set with silver plates and a bucket with chilled wine. The servoids held the chairs as the two men were seated.

"When does your term expire. I assume you do have terms?"

"In two weeks. In two weeks it will have been twenty-five years," Abudoh answered.

"So. In two weeks you will be a free man. And what will you do with your freedom? You'll be rich," Kwon said, nodding toward the credit chip in Abudoh's pocket.

"This money belongs to the Pentat. It will go into an account, and someday we'll buy our freedom, though when I leave I'll receive a portion. I don't know what I'll do for sure. Buy passage back to Della. Work. Start a business so I can pretend I've earned my wealth."

"Could you hire on with the Corporation?"

Abudoh jerked his head so violently that Kwon started back in his chair. "Never!"

"Oh," Kwon said. "I suppose not. I suppose not." He fumbled with his napkin and began removing the covers to the dinner trays.

"I apologize. I should not have reacted so," Abudoh said. "It's just that . . . I would never submit to that indignity. The Corporation has sought too hard to keep me in debt. I've saved for years—lived with no luxury—to afford passage home. I . . ."

"It's quite all right." Kwon ladled into a bowl of sweet-smelling soup of a kind that Abudoh had never seen before. He passed the bowl to Abudoh and began dishing one for himself.

Abudoh suddenly realized how strange he must look, wearing thin robes unfit for a beggar. Certainly Kwon didn't wear those silly mock-worker overalls all the time. He probably did it to make Abudoh feel at ease. Kwon probably didn't even notice that the cut of the overalls was too fashionable. The worn look, the ragged edges, had probably been made by some peasant scrubbing and beating the cloth. A man like Kwon, with a ship like the *Untouchable*, would be the lord of many planets. They began eating.

"Would you like wine? It's Magdar-essence wine."

Abudoh looked at the clear golden liquid, unsure. "Yes, please."

"You do not have to say *please* to me," Kwon whispered.

Abudoh bowed in gratitude as Kwon poured the wine into a crystal goblet. The wine was thick, like watered honey. Kwon poured himself a glass, offered a toast.

"To Abudoh Gabrah: may he ever remain rich and free!"

Abudoh clicked glasses self-consciously. "And may Allah grant you peace," he offered.

They drank. The wine was sweet like passion fruit, hot like pepper, and made Abudoh's head feel as if it were floating in water. With one sip he learned to love it, and gulped the rest greedily. Afterward he felt silly for showing a lack of restraint.

Kwon smiled. "It is good, yes? It affects everyone that way the first

time. On Gartiez they say Eve partook of the fruit of the Magdar tree in the Garden of Eden."

Abudoh nodded and glanced around the valley, still nervous at the possibility of a patrol. Kwon poured another glass and was about to hand it to Abudoh when he stopped and stared in delight: a scarlet moth, a ruby-winged kudru with a wingspan as wide as his forearm, flew to the table, circled, landed on the edge of the cup, and sat there gently pulsing its wings as it lapped the wine. Neither Kwon nor Abudoh spoke, but both stared in fascination as the kudru was joined by another, then another. The sun shining through the moths' translucent wings made bright patterns of red and purple on the white of the tablecloth, Kwon's platinum bracelets, and the silver of the dinnerware. The moths began flying in from surrounding trees, and soon twenty of them circled the canopy, alighting on goblets, lapping from the sides of the bottle. Kwon tried to swish them harmlessly away with his hand, but the moths simply circled and returned. The air was filled with the sound of softly clacking wings.

"Does this happen often?" Kwon asked with an amused grin.

"I have never seen them act this way—not in the spring!" As if by premonition, Abudoh glanced up at the hovercraft. The snakebird had awakened and was staring out over the top of the door with big, tired, yellow eyes, blinking stupidly at the kudru. It hopped into the air, flapped its wings, and soared down the slope to the table. Abudoh did not have time to warn Kwon before the snakebird landed on the table, knocking food to the ground.

"Damn!" Kwon screamed, grabbing a butter knife and stabbing at the snakebird. He swung a moment too late. The reptile jumped into the air and circled the canopy as it caught at the kudru with its finery lips.

Kwon screamed a wordless curse, turning red in the face. He whirled toward the guard robot and shouted, "Byron: needle-point, avian head-kill!"

Before Abudoh could even turn toward the robot there was a crackling sound and small bursts of light exploded around him. The kudru dropped from the sky, each with a small hole in its head. The snakebird fell to the ground with a heavy thud, struggled to rise, and lay panting for a few moments before it went into convulsions. The small tentacular lips pulled up pieces of grass. It heaved and died. Abudoh watched in silence.

Kwon wiped soup off his coveralls and grumbled under his breath. The servoids picked up the plates and set them back on the table.

Kwon picked up a moth to inspect. Its wings folded out from a light green and black body, like double fans connected at the center. "What are these things called?" he asked, tossing the lifeless moth to Abudoh.

Catching it, Abudoh turned it in his hand. The sun shone dully through

the wings. Against his black skin the red was hardly visible, but the grey robes and white tablecloth caught the colors much better: the red of the wings, the traces of purpled veins. "It's a ruby-winged kudru," Abudoh answered. "Very beautiful."

"Yes, they are," Kwon agreed.

*Then why did you kill them?* Abudoh thought.

"These are some of the most beautiful I've seen. Perhaps *the* most beautiful. You should see the emperor moths of Lani—twice the size of these, with cream and metallic green wings. Each wing pattern is unique."

The tone in Kwon's voice impressed Abudoh. "In the eastern deserts are the cinnabar-winged kudru whose wings are lighter red in color, and the wings' veins are more of a turquoise. In the first snows of winter, the kudru gather together in great flocks and fly north toward the equator. The flocks join and form great ribbons in the sky. If the sun is right, and the kudru are flying low, the beating wings are reflected on the snowfields. It is as if you can see rivers of fire burning in the snow. The company closes down so we can watch. It is very beautiful," Abudoh sighed.

Kwon stared at the dead kudru in Abudoh's hands. "Someday, I would like to go to those deserts."

"Would you?" Abudoh asked, genuinely pleased. "It would be dangerous. But I will tell you: I have collected some kudru. It would please me to give them to you."

"I'd pay you well," Kwon said.

"No! No! They must be a present. A gift." Abudoh insisted, and was surprised at Kwon's reaction. His eyes misted over, and he had difficulty controlling his emotions. Abudoh was reminded of something Hakim had once said when training Abudoh in diplomacy: *To a rich man, a genuine friend is worth more than hills of rubies.*

"Thank you," Kwon whispered.

"I'll bring them next time we make the drop!" Abudoh said. "Ah, but I forgot—we'll not meet here again: I'll be leaving in two weeks. So I'll take them with me. You'll know where to find me."

Kwon nodded in such a way that Abudoh got the impression that no matter where he went in the galaxy, Kwon would know where to find him. Abudoh looked at his chronometer. In three minutes it would be time to go.

Abudoh rose. "It's been a pleasure to see you again."

"Don't go. You don't have to go," Kwon said, suddenly clutching Abudoh's arm. "Come with me!"

"Where?"

"Anywhere. Anywhere you want to go! We can leave now. No one will

ever catch us! You'll be *free*. Free to go where you like—to do what you like!"

"No," Abudoh said sadly, pulling away. "They would catch me."

"No they wouldn't! You'd be with me. We could go anywhere. Do anything. The sky is an open highway! Do you want to go to the casinos on Sentelli? We're two days away! Do you want to go somewhere else? *Anywhere* else? I swear to God, there are dustball worlds that have never even heard of the Witham Corporation! You'd be free! We can go to Waterly. You'd love it there. The women there are sweet, sweet and dark as chocolate!"

Abudoh smiled and looked away. "Sweet, hmmm," he sighed. "Sweet. May you ever smell sweet," he said as if in incantation.

"What's that?" Kwon asked with a flicker of a smile.

"A blessing. An old blessing given to children. It means 'may you be rich and smell of perfume.'" Abudoh mumbled the blessing: "May the rains come often to your deserts. May no wild animals come into your tent. May you ever smell sweet. And when you die, may Allah gather you to his bosom." He smiled sadly and turned to Kwon. "I could not go with you. I could not leave the woman I love. She too will soon be free."

Kwon rose from his chair and patted Abudoh's shoulder resignedly. "I will see you in two weeks, I suppose. We can go then."

"And I will bring the kudru," Abudoh said, hugging Kwon in the manner of his people.

"My real name is Takachi Ishibashi the Fourth," Kwon said. "And my father is Takachi the Third, Emperor of ten thousand worlds."

Abudoh considered the gift. Smugglers never revealed their names. But then, he considered, Takachi is a prince who only plays at being a smuggler. The name was familiar; he'd heard it somewhere before. Takachi would be prince of some petty empire on the far side of the galaxy.

Abudoh pondered a long moment over a proper reply. "I will never betray your trust," he said solemnly. Then he went to his hovercraft. The clouds were almost burned away. Takachi would have to leave before the next photo-satellite, but he sat back down and was eating when Abudoh turned on the engine and sped out over the hill.

Abudoh reached Lake Manaw in less than thirty minutes, and immediately went to work reinstalling the transmitter that tracked the Company hovercraft. Officially, he was on a jubbub fishing expedition, a cover he'd developed over a period of years. When finished with the transmitter, he took the hovercraft down to a muddy shore of the lake. The lake was wide: he could barely discern a line of hills on the far side. The water was flat and clear as crystal by the shore, but white and frothy out in the center.



Abudoh hammered some metal pegs into the mud, then ran lines from the pegs to the hovercraft. He took out his fishing chair, a metal chair with a curved plowlike bottom, which he also drove into the mud. Then he fastened two lines from the hovercraft to the chair, got out his heavy fishing rod, and fastened a line from the rod to the chair. Once he was anchored to shore, he put a scented hook on the rod, set a charge in the casting mechanism, pointed the rod at an angle above the lake, and pulled the casting trigger. The charge exploded, sending the hook and line three hundred meters out. Abudoh set the drag on the reel, took the slack out of the line, and waited.

Out on the lake the water flashed in the sunlight. Almost Abudoh could imagine silver coins dancing under the surface. After watching awhile, Abudoh could make out trails of brown in the water where the big jubjub fed on the bottom, stirring up the mud. But his mind kept returning to Takachi.

Hakim would have been proud, Abudoh thought, of the way he had worked Takachi. He turned over and over in his mind the images of Takachi's eyes misting at the thought of a gift from a slave. Of Takachi begging for Abudoh's companionship, of Takachi telling his name. Hakim would have laughed a wide toothsome laugh if he'd seen it—would probably not believe the tale when Abudoh told him. "Ah, what a fool," he would say, "to store his meat in the jackal's teeth!" and he'd chuckle.

The snakebird should have listened to my warning, Abudoh thought, remembering the snakebird's dying throes. Once, an assassin went to kill Muhammad. As the assassin was passing through the market he saw a dead calf with its throat slit. The dead calf called to the assassin and said, "Do not go to slay Muhammad, for he is God's prophet. Go instead to your own house, and you will find your wife and your sister reading the Koran." The assassin hurried to his house and found all things as the dead calf had told him. Then he went to Muhammad's tent and offered to serve as Muhammad's bodyguard. He slew a thousand cutthroats and assassins while guarding the Prophet. Abudoh thought on this fable, and wondered if the snakebird, were he near, would speak to him. Would Allah command him through the mouth of a beast not to slay Takachi?

The rod jerked double. Line screamed out for a moment, then stopped. Abudoh jerked the rod and tested it. He was able to pull the jubjub with his own weight: it was a small one. He wasn't interested in it, so he set the reel on automatic and let it drag the fish in. The jubjub struggled, but the pole's helper-motor reeled steadily. Abudoh got out of his chair and went to the hovercraft's trunk. A small black tackle box was there. He opened it. The detonator light was still red—Takachi hadn't gotten far, was probably still dodging the Net patrols.

He carried the tackle box back to his fishing chair and set it beside him, then took the reel and fought the little jubjub himself for a while. After fifteen minutes he had the fish landed. It was muddy brown in color, flat, round, and two meters in length. Two eyes at the top of its head sat among a myriad of warty humps, and its tail thrashed like a whip. The oval mouth, crammed next to its eyes, was full of jagged, triangular teeth. It was small, perhaps sixty kilos. Abudoh sat in his chair and watched the jubjub gasp and struggle, trying to wiggle back to the water. Something about the day made Abudoh feel laconic, dazed. He couldn't keep his mind on the fishing. The jubjub struggled and went limp.

He remembered Takachi's eyes misting over. The plea in his voice as he begged Abudoh to leave with him, almost a whine.

The black tackle box began emitting a beep. Abudoh looked at it. The red light had turned green and was flashing. He thought of leaving, of getting something to eat or drink. But the green light was flashing. He put his finger on the button, gazed up into the sky, and whispered: "And when you die, may Allah gather you to his bosom." He pushed the detonator and counted to three. Suddenly, away on the horizon far from where he was looking, a great light glowed. For a full ninety seconds another sun shone in the sky, grew from horizon to horizon. Then it was gone.

He thought about staying for two more days to fish. It would be consistent with his cover. But he decided to go back to town, feigning curiosity.

He loaded his little jubjub in the back of the hovercraft, then went down to the lake and washed the fish blood off his hands and dried them on the grass. After that, he tossed the detonator into the lake and sped toward town. He flipped the radio on, but the station only played music, no news. Apparently the authorities needed time to devise a story. At the end of the song an announcer informed the people that there was no explanation yet for the explosion.

His course took him over the hills and through a deep forest of banburn trees with trunks as thick as the hovercraft. He shot through the trees at top speed, putting his mind on idle, dodging the obsidian-black boles of the trees without thought, skimming oblivion with each flick of the wrist. The trip thrilled him, made the hair on the back of his arms stand on end, dried his mouth. He played with the idea of slamming into a tree, imagining the fireball he would make, wondering what it would be like to be thrown into that nothingness. The forest floor was thick with a covering of yellow fluff. Cotton candy moss it was called, though in actuality it was the egg casings of a tiny arachnid. The hovercraft made a trail through it, sweeping it cleanly aside, sent it flying in the air.

Abudoh kept turning to watch the fluffballs of yellow moss float in the air.

By evening the bar was full of miners and plant workers in sweaty coveralls, all gathered to get stoned and listen to the news. Dust drifted in from the streets and mingled with the smoke and sweat. Abudoh sat in a dark corner drinking gin, dreaming of Magdar wine. Occasionally he watched the customers talk in hushed voices; occasionally he would glance at the tense, dangerous little men in dirty coveralls. He recognized them as security men, undercover. From time to time a news update on the miniature holo in the corner started, and everyone hushed as the report was given. Initially, broadcasters stated that two freighters carrying liquid fuel may have collided, but it wasn't believed, so the Corporation changed the story: now the official word was that Net authorities had fired upon a retreating smuggler and somehow scored a direct hit on a container of cobahite.

"Bullshit!" one of the miners swore. "Even with a direct hit from a neutron-beam turret you couldn't take the cobahite to critical."

After an argument, the miners buttonholed a trustworthy supervisor at the far end of the bar, one who had a reputation as an amateur physicist. The supervisor glanced around the room with eyes as fearful as a cornered rat's, looking uneasily at the dangerous little undercover cops. Grudgingly he said, "Quite possible, quite possible—though highly unlikely. Definitely a one-in-ten-thousand shot."

"Well, if that's true, at least he took some of those Goddamned Net bastards with him!" A burly miner laughed. The room became quiet. The miners went back to their drinks. The supervisor slipped away soon after.

The news comforted Abudoh. If Net authorities took credit for the explosion it would be an acknowledgement of their inability to solve the crime. Perhaps he would never be caught. If Takachi had piloted the *Untouchable* to the best of his ability, he was probably never spotted. There wouldn't be enough left of the ship to identify its make. The Pentat would be left unscathed.

Abudoh sat and stared into his drink. A dark hand reached out and touched his sleeve. He looked up.

"I thought you might be here," Dahar said. She smiled down at him.

He nodded to the seat on the other side of the booth. She sat down.

"How was your day?" she asked.

Abudoh nodded, grunted. Dahar watched him in silence for several minutes.

"I was worried for you," Dahar said softly. "We were working in the mine when the news came over the radio. We were all together. Waiting. The whole Pentat. When the news came we wanted to scream, to shout

for joy, to hug each other and dance. But we couldn't. We couldn't even smile for fear of the monitors. It was hard. The hardest thing I've ever done. But we knew you'd got the—him. Still, I was worried for you."

"Was there so much joy over the death of the man?" Abudoh asked, staring down at his drink.

"Don't think of him as a man. It will only make it hard," she answered.

Abudoh finished his drink, turned the cup over upside down on the table. "Hakim has said that every man, regardless of his perversity, *needs* to believe in his own worth. He will hold his good points to his own view and tell himself that they outweigh his evils. Perhaps the man I killed was that kind of man. Perhaps I am that kind of man." He stared at her with a question in his eyes that was part accusation. They sat in silence.

"Why hang around here?" Dahar finally asked. "Why don't you come back to the barracks. We can make love. You'll feel better." She reached across the table and, with one finger, began massaging his wrist in slow, steady circles.

The door of the bar opened, and the sound of singing carried from the street. Bald, sweaty-headed Maruan acolytes in yellow robes were joined hand to shoulder, snake-dancing on the sidewalks and lawns. Abudoh shook his head. "No."

"Why not?"

He shrugged. "I don't know. I guess it's because I know I wouldn't feel better. I'd just water this planet with another cup of my sweat. It doesn't—I don't know—it doesn't deserve it."

Dahar smiled weakly and continued massaging his wrist. "Okay. I'll be here if you change your mind. I'm your woman, you know. I'm your woman."

Abudoh caught her hand, kissed it, set it back on the table. She pushed the sleeve of his robe up and began petting the hairs on the back of his arm. They sat in silence.

A news flash came on the holo, announcing an explosion on some planet called Gaell. A few moments later a female announcer appeared on the holo, a woman who lived light-years away, whose image had been sent in a faster-than-light capsule. She was a small anglo; by the way she held herself it was obvious that her gnomish features represented the epitome of some foreign concept of beauty.

The room went silent as the news of the destruction of Gaell took precedent over other business.

"The planet Gaell was virtually demolished today, Sept. 12, in the Circe system," the gnomish woman said. The holo picture switched to shots of Gaell, the kind of lush scenes of grass, water, and mountains a travel agency would display. "A cobahite device—the third to be exploded

in the last three months—wasted the northern portion of one continent and immediately killed an estimated 270 million people. So far, some two hundred thousand refugees have been evacuated from the planet and put in stable orbit around its moons.” The holo switched to shots of a child, scarred and burned, huddling in the dark hull of a space freighter. A pregnant woman writhed and cried in a corner. “Death tolls are expected to reach the one billion mark, and the planet will be permanently evacuated.” Abudoh was angered that they had shown the pregnant woman. It was as if the news service felt that nothing else could touch the hearts of its viewers. And he found it difficult to ignore the tone of relish in the announcer’s voice.

“Authorities have no suspects in this third attack—nor do they yet have any motive for the attack. However, they do promise that restrictions on all cobahite-producing facilities will be increased.” A general from the Intersystem League Police appeared on the screen and reiterated the announcer’s claims, then the holo switched back to scenes of the destruction of Gaell. Before-and-after shots from space were shown of what had once been the continent where the planetary capital had been. In the picture, the dust clouds were being blown to the east. A distinct dent could be seen in the land mass. It was gradually filling with ocean water.

Dahar took a napkin from a stand, took out a pen, and began calculating. Figuring the distance to the Circe system, and the speed of the *Untouchable*, she came up with the flight time it would take to get from Gaell to Tabee. She triumphantly set the pen down and watched Abudoh’s face for a sign of emotion. There was none.

“He must have sent the message pod for an order of cobahite the day before he detonated the bomb,” she whispered. “Then he blew it, and beat the FTL news pod here! We got him!” She flashed a malicious grin and her eyes twinkled. “All right?”

Abudoh considered it. “Yeah, I’m all right,” he said.

Some miner, a big burly anglo with a thick black beard, began laughing at the bar. “Shooting smugglers! Bullshit!” he roared. “The Net never shot any damned smugglers: some Pentat got him! Some Pentat assassinated the Cobahite Bomber! Don’t you see! We got him!” As one, the crowd in the bar stiffened. Abudoh watched approvingly as the realization of the rightness of the accusation spread from face to face.

Four little security men jumped from their chairs. One stepped up to the miner and began whispering to him.

“No! I won’t go anywhere with you!” the miner shouted. “Don’t you see? We don’t need you! We can police ourselves! We don’t need you! We got the bastard!”

The security man jumped into the air and gracefully kicked the miner

twice; one kick hit the miner's chest with a cracking sound, the other smashed his nose. The big anglo crumpled. Two other security men twisted his arms behind his back and pigeon-walked him from the bar. When the door opened, the acolytes' song was louder, frenzied. The room quieted as the door swung shut.

Dahar whispered in Abudoh's ear. "Why did he do it? *Why* did he kill all those people? Did you find out?"

Abudoh shook his head. "Not really."

He sat and meditated upon it. Perhaps some whore wasn't friendly enough. Perhaps the sky there was too dirty or too cold. Maybe one person on the planet had insulted Takachi, or perhaps the very people were unclean and insulted him by the petty lives they lived. Maybe Takachi didn't *need* a reason. Maybe it was because he flew fast and far in the *Untouchable* and knew he could never be caught. Perhaps Takachi thought *he* was the *Untouchable*.

One of the security men came back in, a little blood splattered on his work uniform. Abudoh watched him, hating the confident gleam in the man's eye, hating the way the man's presence made his own belly tighten. A rainbow of scintillating lights shimmered in the evening sky outside the open door, followed by claps of exploding fireworks—the final festivities of the Maruan acolytes' celebration of the future.

In two weeks, my contract will expire, Abudoh thought. If they don't catch me, in two weeks I will be free. The sky is an open highway. ●

## WELTANSCHAUUNG

Wobbling the one-legged dance,  
Earth careens ever blindly on its axis  
through the silvered cavern of night:  
arms splayed, a drunken Siva.

The weather is her costume,  
belted with the myriad changes  
of moisture and light.

The sky is her stage.  
The sky is her temple.

—Robert Frazier

# THROUGH ALIEN EYES

by Hillary Rettig

Hillary Rettig was born, and now lives, in New York City. She has published many articles on scientific and other subjects, and she is also a graduate of the 1987 Clarion-West writing workshop.

"Through Alien Eyes" is her first sale to a science fiction magazine.

art: Janet Aulisio



The week after I turned fifteen, I wrote my sister a letter and asked her to come back and visit us. By the end of the week, I was almost sorry I had done it. By then, I was sick of everything: my parents moping around the house, the sessions with the Enabler, and the stares and questions of everyone, most of all my "friends" at school.

Is it true? they all asked. That KTrin's coming home? And you invited her? Without your parents knowing?

Is she going to be, you know, *weird-looking*?

I hated them all. I hated everyone that week.

My mother, Seeren, first of all. After I told her what I had done—invited my own sister home for a visit, is that so bad?—she screamed for a solid hour and then didn't speak to me for three days. Next, my father, Nico. He was better than my mother, but not much. He lectured me constantly—stuff about the Civic Code and Privacy Options and How Important They Are in the Cramped Lunar Environment. The same ether I always hear, all the time, in school. And, as usual, he acted as a voicebox for my mother—telling me her opinions, when she herself thought I was too low to talk to.

Neither of them were any help at all preparing for KTrin's visit. I had to do everything myself. As usual.

Like I said, by the end of the week I was almost sorry I had done it. Everyone said the same things, over and over: KTrin was a hypertroph now; she'd never fit into normal Lunar society again. What could I have been thinking of when I invited her?

I know what I was thinking of. I thought that if KTrin visited, and we showed her a good enough time, she might decide to cross back. We would no longer be half a family anymore, but a whole family, a Symmetric Four. Seeren and Nico would have their precious elder daughter back, and I would have my sister.

Let them yell, I thought. When she crosses back, they'll all thank me.

I woke up early on the morning KTrin was to return. I sonicked, stringed, and put on my formal jumper (dark green, for Procellarum, a red stripe for Schiaparelli province; no civic stars, alas). I peeked through a window and saw that my parents were already sitting downstairs at breakfast. I climbed carefully down the vertical, instead of jumping: I was determined to stay on their good side.

I greeted them using full Code, wishing them prosperity, integrity, respect, and all the rest of that stuff. They both looked surprised, and it took five whole seconds before they could give the responses. They both looked more tired than angry—a good sign, I thought.

Both of them, I noticed, were wearing dark green, with all the awards on.



I went to the dispenser, picked up a tray—yucky gels again; they must still be having problems at the hydroponics plant—and sat down.

My father had a screen propped up next to his plate. "What's the news?" I asked, hoping for a safe topic.

He glanced at my mother first, as if asking permission to speak. "More of the same," he said. "The Terrans are putting another tariff on titanium."

My mother looked up. "I suppose that means the price of everything is going to go up again," she said crossly.

"Everyone at school says there's going to be a war," I said. "Real soon." Usually, I hate war-talk. That's all you ever hear, at school and elsewhere, and I'm sick of it. But, like I said, I was determined to get along.

"It's too early to tell what's going on," Nico said. "Things could go many ways."

"They say that Earth won't stop thinking of Luna as a colony unless we force her to," I said.

"That is irresponsible, unpatriotic gossip," Seeren said. "And we shouldn't be spreading it."

My mother knows, better than anyone, how to end a conversation. We all concentrated on our food.

Nico tried again, a few seconds later. "Tempe, your mother and I have decided to go with you to meet KTrin."

As if I couldn't tell from the uniforms. "That's great," I said. "She'll like that."

"Is everything ready for her visit?"

I nodded. Nice of him to ask, now that all the work was done.

"And the medicines? Is everything ordered?"

"I'm not a dope, you know," I reminded him. "Oh, and I took a one-week off from school. That's all right, isn't it?"

Seeren frowned. "One week? Do you really think she's going to stay that long?"

I couldn't stand it any more. I stood up, shoved my tray and scraper down into the recycler in the middle of the table, and headed for the vertical.

"The Enabler called this morning," Nico said. "She wants to see you before we leave."

I stopped in mid-climb and turned around. "Again? Why?"

"She's concerned because you broke Code, I guess."

"I *know* I broke Code," I said, my teeth gritted. "You don't have to keep reminding me. Why doesn't she just report me, if I've done something so bad? Revoke my citizenship; send me to Darkside?"

"Don't be melodramatic," said Seeren.

"They caught Shuri, over in A-spoke, reprogramming a dispenser and he only had to see her once."

"Maybe she likes you," Nico said. No one laughed. "Besides, Shuri *should* have seen her more than once. His parents should have called her." His hand went up to touch, briefly, the medals on his chest. "Sometimes even Full-Cits don't do their share."

"Well, she and I already talked all about the Code," I said. "I don't see why—"

"Stop whining," Seeren said, her voice like ice. "It's not anyone's fault but your own."

Once in my room, I locked the door behind me and jumped onto my cot. I knew I was supposed to be getting ready to see the Enabler, but I didn't care. I could have lain there all day, staring at my room and rehearsing nasty endings for my mother.

My room looked strange. It was a standard double, but half of it had been empty for the two years since KTrin had left for the hypertroph colony. Now it was not only complete, but crowded, KTrin's half filled with oversized, hypertroph furniture. I had ordered it last week, after we got her message.

What would she look like, I wondered, staring at the strange furniture. After two years, her hypertrophy would be nearly complete. I sat down at my terminal and called up one of her holos—the last one taken before she had left.

There was her face, all familiar. If I wanted to, I could run a simulation that would cause it to inflate to hypertroph dimensions. My fingers hovered over the keys. Then the terminal chimed; a reminder—from Seeren, probably—that it was time to get moving. I shut the terminal, checked myself quickly in the mirror, and took the private exit out of my room.

It was mid-shift, and our spoke—a residential—was practically deserted. Everyone was either at work, at school, or asleep. I passed a few people I recognized, probably out on dayleaves, but since dayleaves are private business, we left each other alone.

The Enabler lived, of course, at the hub. If my problem had been Extrinsic—a fight, perhaps, with someone in another wheel—I would have had to meet with the Conjugate who lived between the spokes. But this was an Intrinsic problem—one of personal adjustment, I guess they would say—so I headed toward the hub.

With my problems in school and stuff, the Enabler and I were old friends. She's a greenie, an immigrant from Earth: all wrinkled and saggy and short. She looks like she's been around forever. What I like about her is that when you talk to her, you never know just what she's going to say—unlike some of the other Enablers, who sound as if they've

swallowed a Codefile. Some of her opinions are, well, different. I couldn't say that I actually enjoyed my "visits" with her, as she called them, but I liked her more than most.

She got the official rhetoric out of the way quickly, then hugged me, asked how my parents were, and made a big deal over seeing me dressed up. She led me into the hub, which was full of cushions and soft carpets in warm reds and browns, and we both made ourselves comfortable on the floor.

"A treat for you today," she said, punching keys on a tabletop dispenser. Two plastic cups emerged; I took one and peered into it. Then I looked up at her in disbelief.

"That's right," she said. "Chocolate."

I hadn't had chocolate in years. I stared into the cup for several seconds, hypnotized by the smell and the bubbles that ringed the surface. "I didn't know you could get it any more," I said finally. "Not since the Embargo."

"There's still some left, if you know where to look," she said, winking. I thought this irreverence a good sign, and relaxed somewhat and took a sip.

"Now, about KTrin," she said, settling back into the pillows. "You're to be commended. Most hypertrophs, once they're up-surface for more than six months, never return home, not even for a visit. So it reflects well on the wheel when it happens." She paused, smiling. I was dazed: could I have finally done something right? Just wait until I told Seeren and Nico.

"Of course, it's not always easy for the family," she continued, slowly stirring her chocolate. "Tell me again your reason for not asking your parents' permission to have KTrin visit."

"I didn't tell them because I thought they would say no," I said. I knew better than to try to lie to her. "And I didn't think it would affect them, not too much, anyway. She could stay in my room—her old room—and if it bothered them, she could use the private door. It's still her room, isn't it? I mean, for another year?"

"That's right," the Enabler said. "According to the rules, three years, unless someone in the family files for divorce. Which no one has, in this case."

"So why can't she come home and stay in her own room?" I asked. "If she wanted to, I mean."

The Enabler thought about this. "That's right," she said, finally. I felt as if I had scored a point in a debate. Then she added, "Of course, KTrin didn't offer to visit. You invited her. Isn't that right?"

"I had to," I said. "They would have never invited her, not in a million years. They would have been afraid of what people would think, seeing KTrin. That's all they care about—what people think."

The Enabler nodded. "We all live pretty tight down here. But can you think of anything else—any other reason why they wouldn't want KTrin to visit?"

I couldn't.

"Do you know the crossover rate among siblings of hypertrophs?" she asked.

The question surprised me. I wasn't even aware that they measured things like that.

"Forty percent higher than for non-sibs," she said.

It took me, even then, a few seconds to catch on; when I did, I thought I would die of shock. "Is *that* what they're afraid of?" I asked. "That I'm going to cross over?"

"It's not an unreasonable fear," she said.

Ether, I thought. Only crazies and brilliant people cross over. I didn't say that, of course. What I started to say, instead, was that I wasn't old enough to cross—and then I stopped, realizing that I was now the same age that Cataran had been when she crossed.

The Enabler watched me.

After a pause, she asked me to tell her what I knew about hypertrophic philosophy. I told her about JTir's god/gravity paradox, cosmic autonomy, and all the other stuff that I had picked up from KTrin's files. Then I told her what I knew about the trophy process itself, about life on the surface, and the special, shielded vats where the first hypertroph "children" were already being conceived. (These children, it was said, began their trophy even before they were born. By the time they reached adulthood, they would look much stranger than any hypertroph now alive.)

Unlike my parents, the Enabler looked as if she was really interested in which I had to say. She kept nodding, and interrupted only to ask questions. "You're very well informed," she said, after I had paused to catch my breath. "Now tell me what you really think of hypertrophs."

"Well, I used to think they were pretty weird," I began. "Back before KTrin—that is, Cataran—crossed over. But now I think they're all right. I mean, so what if they want to live up on the surface? And in domes instead of wheels? Why is that so important? And so what if they want to change their bodies? Who is it hurting?"

She smiled sadly. "Well, it's hurt you and your parents, for one thing."

"Okay," I said. "Maybe. But we adjusted. Besides, it wouldn't have hurt us so much if everyone else hadn't been so weird about it. How come people hate them—the hypertrophs—so much?"

"That's a good question," she said. "Maybe it's because people resent them for setting themselves apart. Especially during the present, ah, critical times."

"The times are *always* critical around this place," I said. "Sometimes

I get so sick of it all." Then I glanced up at her, nervous about what I had said. If she was offended, however, she didn't show it.

"Tempe," she said. "Finish your chocolate."

I had forgotten all about it. I swallowed the dregs, which tasted grainy and bitter, and shoved the cup down the recycler.

The Enabler walked me to the door. She looked old, suddenly, and her steps were slow and shuffling.

"Have you gotten everything you need for KTrin's visit?" she asked.

"Yes, Ma'am."

"The drugs, too?"

"Yes."

"Good girl," she said. She held onto my arm, a rare gesture for her. "You're a smart girl, Tempe, and a brave one. Only I'm afraid you're too much of a dreamer. Don't expect too much from this visit."

A question occurred to me. "Enabler, do you really think there's going to be a war, like everyone says?"

The question didn't seem to surprise her. "War?" she said. Her voice sounded angry; her grip tightened around my arm. "Yes. I think there's going to be a war. I think there are some hard times ahead for everyone."

When I got back, I found my parents waiting for me out in the spoke. "We have to hurry," said Nico, handing me my purse. We climbed up a spur and caught one of the public shuttles.

The shuttle was practically empty, but we took three of the bottom-most seats. As soon as we had strapped down—Seeren, then Nico, then me—Nico took my hand and, in a whisper, asked how everything went.

I remembered what the Enabler had said about Nico and Seeren being afraid that I would cross over. So that was really what they were worried about. It was touching, and it almost even excused their behavior. I felt better about them than I had in weeks. "She said that she thought you were both being very generous, to welcome KTrin back into your home," I whispered. "She said we were a credit to the Wheel."

"She said that? Really?" He looked like a kid who had just gotten his first Civic Star. "Well, that's just great," he said, to no one in particular. Seeren bent forward to look at me from his other side, and smiled fleetingly. Her eyes, I noticed, were red from crying.

I turned away and thought about what else the Enabler had said, especially her warning about how things might not turn out the way I expected. I had heard it before, of course, but it seemed much more serious coming from her. Had I really made a mistake in inviting KTrin? But could she have really changed that much?

No, I thought. KTrin was my sister; she always would be.

\* \* \*

I hadn't been up at the Station for a while, and when we got there, I was nearly flattened by all the noise and commotion. The dome was filled with people running around in every direction, and everybody seemed to be yelling at someone else. There was a giant screen perched up on a high wall above everything else. It read out, in enormous letters, the latest headline: a Terran satellite had erroneously reprogrammed the trajectory of one of Imbrium's solar collectors, and the whole quadrant was now on emergency power. An accident, of course.

Nico suggested that we go up to the viewbubble. We stood in line for a vertical, and climbed up.

The viewbubble was as quiet as the Station was noisy. There were about thirty people there, sitting and watching the scenery. We took seats in the back.

The view was breathtaking. The surface, lit by earthshine and enormous floodlights, stretched out like a grey, rocky reef all around us. Overhead, the earth itself, shining like a vast crescent gemstone, hung low in a velvet sky. Far off, its huge rim looking only a few centimeters high, was the crater Copernicus. For the past two years, KTrin had lived there, in a city filled with hypertrophs.

The shuttle was late, and we waited for what seemed like hours. I didn't mind, though: I just kept staring at the scenery. I couldn't get over all the empty space, just sitting there, a few hundred feet above the wheel. Up here, there weren't any Spokes or Codes or Enablers, and suddenly all of those things seemed artificial and unimportant.

After a while, Nico pointed to one of the low stars, and I saw that it had a greenish tinge. I watched as the light slowly grew, becoming first a disc and then twin discs. Eventually, I was able to see the body of the freighter itself. When it was close enough, I saw the faded logo emblazoned on its side: "United Federation of Space-Faring Nations," and the other logo that someone had scrawled over it with sloppy black paint, "Luna Libre!"

The freighter slid to a stop, and I felt the vibrations as a wall somewhere beneath us opened. As if a spell had been broken, everyone in the room jumped up and rushed to the vertical.

Down below again, we watched as the shuttle anchored and stabilized. It seemed to take forever for the hatch to open—Nico chewed off nearly all his fingernails, waiting. It did, finally, and the passengers started to exit—hypertrophs, mostly, since Schiap is the first station west of Copernicus. They all looked impossibly tall and thin, and their hands, when they stretched after the long trip, lifted higher than the roof of the vehicle.

The travelers picked their luggage up at the side of the shuttle, and headed out in all directions. I felt a stab of nervousness, then panic.

Then, suddenly, I recognized KTrin.

She was walking towards us, and she was carrying a big box under one arm—a present, I realized suddenly. For my birthday! I wanted to laugh hysterically. Suddenly, everything seemed all right.

Forgetting Nico and Seeren, I ran to greet her. My arms lifted as if under their own power. And then I stopped, paralyzed. As automatically as they had raised themselves, my arms dropped back to my sides.

KTrin was enormous. She stretched on and on, almost two meters taller than I. Her arms and legs looked more like tentacles than human limbs; her body was a compact, unwaisted capsule. Her head, perched like an egg on top of a thick, muscular neck, seemed enormous in comparison with her tiny body.

And her face. It was KTrin's face—very thin, with the bones sticking out like knives—but something—something important—had changed.

It was the eyes, I realized suddenly. They still had all the standard parts, were still even the same color as before. But they were looking at me so strangely.

I forced myself to look at her, into those eyes. It took me a long time to read her expression, as we stood there, staring at each other silently. She was looking at me with an expression that encompassed casual interest or curiosity, but nothing more. An expression you might use on a favorite plant at the greenhouse. Looking up into those eyes, looking up through a distance that seemed to span miles more than meters, listening to the cries and laughter of other people greeting each other, I knew, in a single bottoming instant, that everything that everyone had told me was true. My sister was no longer my sister.

The present, whatever it was, slipped out of her grasp and floated gently to the ground. Another hypertroph walked up from behind her and took her arm: a member of her matrical family, I thought. He was shorter than she was, and darker, and looked like a shadow. Behind me, I heard Nico and Seeren approach, heard Nico gasp, saw KTrin shift her gaze up to look at them.

Above us, the headlines continued to blare. War was coming. ●



# THE LIMIT OF VISION

by John Barnes

Human customs and alien biology weave a tangled web

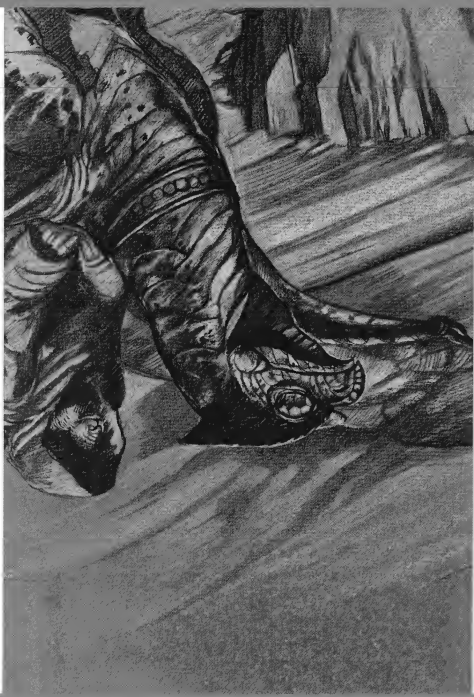
In this exciting tale by John Barnes.

Mr. Barnes's latest novel, *Sin of Origin*, has just been published in our Isaac Asimov Presents book line.

art: Bob Eggleton







There was no reason to suppose that he'd have any more luck with "t'muvam" this time than any other; he had no new data. Still, this was the only one of his original duties Hauskyld could do right now, so he went over it one more time. When the Randallans used it as a transitive verb, it meant something like "love"; intransitively, it meant something like "lives the Tao," always assuming that his translation of "zjirathk" as "Tao" was right. The gerund form seemed to mean something like "perpetual justice." He sighed.

The shrill alarm made him jump. The scriptalker ordered, "All hands to sortie positions. Repeat, sortie positions. Quiet procedure. Emphasize quiet. Gate begins descent on landing field in twenty repeat twenty minutes."

Hauskyld grabbed his helmet and ran into the walkway, sliding the door shut behind him.

As always, Brother Gideon and Brother Joshua had gotten to station before Hauskyld. "Mask down, Brother," Gideon reminded him.

Hauskyld pulled down the screen mask. He turned to the bolt locker and took a quick inventory. "Thirty-two shafts."

Joshua looked up from the swivel. "Could use a little oil next time."

"Grab the oil can and do it now," Gideon said firmly. "We don't want to risk a jam."

Grumbling, Joshua did so. "Hey, Hauskyld. What's that phrase again?"

"Hataha ji'zjak pha," Hauskyld said.

"Yeah, and what's it mean?" The younger man eyed the oil reservoir, nodded, and returned the oil can to its bracket.

"Loosely, 'your mother is a slut for the animals,' " Hauskyld explained, for at least the tenth time. "They never hear you anyway."

"Hataha ji'zhak pa," Joshua tried.

"Ji'zjak pha. You just said she used to be a midwife until she got a better job."

"Ji'zjak pha."

"Right." Hauskyld exchanged smiles with Gideon; Joshua did more than his share to uphold the less than brilliant stereotype of the Aquinian Brother.

The loudspeaker crackled. "Radar has Gate on course for landing field. Watch for descent trail at seventy-two forty-one, estimated visible at about fifty-one vertical in about three minutes."

Down below, in the Main Yard, the cavalry troopers were leading their ponies out into the yard, freshly hosed-down to keep a dust cloud from rising and revealing the sortie. The few hundred more meters before the first griffins dove on them might mean they would only have to fight on their way back.

"It would be a lot easier if they had four less kilometers to cover,"

Gideon said, echoing Hauskyld's thoughts. "Especially if they could make the whole run under covering fire. This fort should have been down lower. Sometimes I wonder about the old man. He hasn't been the same since—"

One of the lookouts shouted, "Descent trail!"

Gideon tightened his seat straps, pressing the pedals to make sure the ballista swung freely. "Bolt," he said.

Hauskyld grabbed a bolt, a heavy piece of detempered steel that had originally been a strut of some kind, about a meter long and two centimeters thick. He ran around in front of the ballista and slid it into the coil. "Loaded."

"Flashes, brother," said Joshua, pointing. Out on the distant horizon, above the redrock mesas and hills, a tiny black dot circled; occasionally the dot flickered into light, becoming a miniature star. The Randallans, mounted on a griffin, was spreading the alarm with his heliograph.

Below, in the main yard, the cavalry had mounted. The main gate swung open; the drawbridge slid forward on its tracks, rolling fifty meters out across the minefield. The bridge locked. The troop trotted forward, swords, lances, and shotguns shining dull red in the afternoon sun. As the tail of each troop crossed the end of the bridge, they broke into a gallop, heading for the white descent trail.

"Here they come." Gideon's voice was tense and flat. "Prepare for arming."

Hauskyld stole a glance at the horizon; black specks, like a cloud of gnats, were marshaling in the air. He turned to lift the first polaron block from the stockpile; Joshua crouched at the dials, muttering and swearing under his breath.

By the cloud of dust, the cavalry was almost a third of the way to the landing field now. The oncoming Randallans split into two wings of about thirty griffins each; each wing rushed toward the fort, one rising to meet the descending Gate and the other swinging in low at the cavalry. "Don't think we'll get a shot at them," Gideon commented. "They'll meet the cavalry out of our range."

The retrorockets cut out on the descending Gate, and the drogue chute popped out. The griffins swung up toward it, smoke trailing after them. "They're carrying torches," Hauskyld said.

From the inner compound, the fort's two antiaircraft guns crashed. Ordinarily the guns were almost useless (the shells couldn't "see" the body-temperature griffins and Randallans against the hot, dust-red desert sky) but the sensors could easily spot the flames of the torches. Half a dozen shellbursts sent several griffins tumbling, one apparently torn in half by a direct hit, another losing its rider as it plunged to earth. "That last one blew the head off the griffin," Gideon commented, looking

through his telescopic sight. "You should see the way the critter waves all those arms around on his way down."

Hauskyld winced at "critter," but after eight months of war, beginning with a series of massacres, you could hardly expect Aquinians not to be speciesist. Part of it, of course, was that this was an all-human garrison, as Survey Expeditions usually were—there were no cadgers, freeeps, or monocorni present to take offense. And although there had been some apparent conversions among the Randallans, there had been no success in organizing a Planetary Legion—all the Randallans were on the other side.

The Randallans were dropping their torches, giving up on trying to ignite the drogue chute. As the main chute deployed, the griffins swung in close to try to cut the chute lines, though iron axes couldn't even mark spun monomyl. Sometimes they tried to jump off onto the chutes themselves, but there was too much wind to attempt it today.

The cavalry was nearing the landing field now, the other wing of the griffins closing with them. Hauskyld couldn't see how it was going at the distance, but he knew that deaths were unlikely on either side—in Randall's thick, viscous air, projectiles had little range or accuracy.

But the Randallans need only slow the cavalry down; if they could do that, then reinforcements could come up in greater numbers and surround the Gate. There were not enough men or horses in the fort to mount a rescue—the Gate and the sortie party would be lost. Fortunately, the Randallans seemed unable to get more than a hundred or so into battle quickly.

The Gate went down onto the landing field. The cavalry rounded the hill and was out of sight. Now all they could see were the swooping, soaring, and diving griffins.

Gideon pointed at the horizon. "More trouble coming." Hundreds of specks were rising—the main Randallan army was taking off en masse.

Hauskyld punched his stopwatch. "Two full minutes faster response than we've ever seen before," he said. "Interesting."

There was a change in the whirling cloud of griffins around the field; the nearest end folded up and broke apart as the still-unseen cavalry passed under it.

"Cavalry's made the break," Gideon said. "Stations, brothers."

The cavalry burst around the hill in a cloud of dust, pursued by the Randallans. Gideon bellowed, "Arm!"

Hauskyld lifted the polaron block and dropped it into the MHD well. He slammed the door shut and kicked the foot switch.

"In Nomine Patri one two three four armed," Joshua counted, as the MHD capacitors hit full charge.

The coil thrummed. Gideon's bolt fell short of the foremost griffin. "Bolt!"

Hauskyld slid another bolt into the coil, moved another polaron block into place beside the MHD unit, and hauled out the blackened, discharged block, throwing it aside. "Ready!"

"Arm!"

Again he threw the block in, closed the door, and kicked the switch. He had just a moment to look up as Joshua counted off "In Nomine—"

More cavalry was riding in than had ridden out. At least a whole extra troop had arrived with the Gate, along with supplies and other people—technicians? For once the apparently random supply system had sent something they needed.

The Randallans must have realized that too, because they weren't breaking off at the outer accurate range of the ballistae as they usually did. The reinforcements swept right on into the zone of fire, trying to cut off the returning cavalry from the drawbridge.

Gideon fired again, this time piercing the wing of an oncoming griffin, which spiraled screaming out of the pink sky, the Randallan on its back losing its grip and plunging down to the redrock, all six limbs waving. "Bolt!"

As Hauskyld slid the bolt in, something hot socked into the rammed-earth wall of the fort by his face. "Critters are shooting back," Gideon said. "Arm!"

More musket balls were thudding into the walls now; one gunner a few meters away was hit.

The first troopers were on the drawbridge now, but the griffins were swooping down on them, trying to force them off and away. Three griffins landed on the bridge itself in front of the cavalymen, their riders jumping off just before landing, each with pistols in both lower hands and a battleax in his upper hands. The handsnakes writhed out from under the poised griffins.

The cavalry hesitated a moment, piling up around the foot of the bridge. That was the moment the Randallans had been waiting for—the troopers were now packed too tight to use their lances effectively. The griffins swooped in, their claws tearing razor-slashes into the crowd as their riders laid into the press below with pikes, flails, and poleaxes.

"Mary's bleeding cherry," Gideon whispered, swinging the ballista around to point down at the bridge. "Mary's fucking bleeding cherry." He fired; the bolt took a Randallan through the back of the head, ringing off the steel bridge and slamming the corpse down face first. The body flopped frantically; its griffin screamed and raised its beak toward the cavalry in challenge.

Hauskyld shoved the next bolt in and ran to the MHD again, but before

he could get the polaron block out, the loudspeaker said, "All hands—scatterguns. Repeat, scatterguns."

Hauskyld whirled; Gideon was frantically unstrapping from the ballista, and Joshua was already running to one of the scatterguns mounted on the wall. Hauskyld took his place beside Joshua and looked up.

A huge wave, a thousand griffins or more, was diving toward them, beaks open and screaming, the Randallans on their backs clutching javelins and lances. Below him, Hauskyld was vaguely aware of a desperate fight on the bridge as the cavalry tried to win through to the gate, and of the screams of ponies and men still piled up around the foot of the bridge under the claws and blades of the Randallans. He swung his gun up; it was really no more than a piece of pipe given handles and mounted on a swivel, loaded with an explosive charge and a few fistfulls of ball bearings. Scatterguns had little range and were impossible to aim, but massed together a few dozen of them could clear the sky.

The waves of griffins tucked their heads and folded their wings, plunging straight for the wall. "Hold, hold, hold, hold," Gideon chanted, his own gun now pointed up at the oncoming griffins. The plunging beasts, delicate in form but big as terran tigers, came nearer for three agonizing seconds. The faces of the Randallans—bulging seven-faceted eyes above a catlike muzzle—were now plainly visible.

The griffins reared, opening their wings into a stall, intent on dropping in among the gunners. "Now!" Gideon shouted.

Hauskyld flipped the switch and his scattergun went off with a terrifying roar.

A huge griffin, its chest torn to sausage by a scattergun blast, fell onto the wall less than five meters from Hauskyld. The Randallan rider tried to get up, but his leg was crushed under his mount; he drew his pistols and fired one wild shot down the wall before he shot himself.

"Look out!" Gideon shouted, picking up a ballista bolt. The handsnake squirmed from underneath the griffin, mouth open wide to bite, grasping fins extended. Gideon lashed out with the bolt, crumpling the snake's head. It spasmed, bit itself, and died.

On the drawbridge below, the troopers had finally cut down the enemy in their path and were pouring across. The Randallan bugle, its voice as deep as a tuba's, sounded across the desert.

As suddenly as they had come, the Randallans were in retreat. A few futile bolts and shots went after them.

As always, there were no Randallan prisoners—not even their animal companions. The Randallans shot or stabbed themselves. Handsnakes flopped and were still, dead of their own venom; griffins ripped their own chests open with their beaks, slashing into the big arteries leading to the heart and bleeding to death in moments.

The surviving Randallans were just specks against the sky—then not even that.

"They'll want me at the hospital," Hauskyld said, taking off his helmet. Gideon nodded. "Go. I'll get things stowed."

Hauskyld didn't have much of a nurse's touch. As usual they put him on filing and recording. About a fifth of the newcomers had been killed or left on the landing field, and a third of the remainder were hurt; all required cataloging, because the officer carrying the manifest was missing back at the landing field.

That took a while to establish all by itself. "So you think definitely three officers at the landing field?" Hauskyld asked one survivor.

He touched the fresh wound on his scalp gingerly. "They were in first; I think they got further than the rest of us did. Then those things came at us and they got cut off . . . The thing is, brother, in our timeframe we only boarded the Gate an hour ago at Arimathea Orbital. And the boarding was pretty confused."

Hauskyld looked at him closely—he was no more than fourteen. "Confused how?"

"Well, we were running late, and people were confused. I think really only the Templars stayed in line. Everyone else was wandering around. Then all of a sudden the whistle blew and we were running to get through the Gate, and those things were after us. What're they called, anyway, brother?"

The question startled Hauskyld. "Griffins—the big winged ones. And the intelligent ones, the riders—we just call them Randallans. Their name for themselves is Thni'tarath-an-k'pha, which means something like 'wingless walkers.' They call the griffins Thni-an-k'ba."

"Thni'tarath-an-k'pha and Thni-an-k'ba." The boy's pronunciation was perfect.

"Right. What's your billet here?"

"Assistant cook and personal servant. And I'm supposed to get some schooling toward a vocation."

Hauskyld nodded and moved on. He'd have the boy in his class—there seemed to be a gift there.

With a mental sigh, he turned back to the job at hand. He had just about established that Shorty, Denny, and Sergeant Tang were all the same person, who was dead, when he turned to find himself looking up into the eyes of a Templar captain. "Several of these men have admitted to leaving wounded on the field. Why aren't they in the penance compound?"

"Because right now we're using it for hospital space. Military inquiry

will have to come later. I'm just trying to find out who we've got," Hauskyld said mildly.

"Where's the bishop?"

"He was killed a few months ago. You want to talk to Father Sherman. I'm going to see him myself in about five minutes if you want to come along."

"Thank you." The Templar stared at him for a moment. "What order are you?"

"Mbweist."

"I thought so." He waited, patiently and politely enough, while Hauskyld completed the last record form; the two of them walked together to Sherman's office without exchanging another word.

The Templar captain spent only a few minutes inside Sherman's office; Hauskyld waited outside. Through the door he could hear some muffled shouting—probably Sherman being informed that absolutely nothing was being done right and that everything had to be fixed right now. At least for once Sherman would not fall asleep while talking to his visitor.

After a few moments the Templar emerged with a smile of grim satisfaction, nodded to Hauskyld, and went on his way. Hauskyld waited a moment and then went in.

"Brother Hauskyld. What—ah—brings you to my door?"

"Really just a question. What the hell are the Templars doing here?"

"A very good question—ah—that I was just thinking to myself for some reason." Father Sherman leaned back. "The official reason is that they want to look at Randall as a possible site for a major staging base—the Church has a relatively weak military arm out this way, and the Menkent system might be just the place to—ah—build it up a little. The unofficial reason I'm quite sure you suspect as much as I do."

"They want to get jurisdiction away from the Aquinians? Did he suggest that?"

"Of course he didn't. They never do if that's what they have in mind." The old man peered at him. "Of course, their whole procedure is very different from ours . . ."

"I'll say." Hauskyld sat.

"And I assume we're *both* opposed to it?"

"Of course I'm opposed to it! Destroy a culture we haven't made a proper study of? It's insane. Any report or petition or anything you want me to sign, as ranking Mbweist, I'll be happy to. The only catch, in fact, is that because we've made so little progress here, the reports would have to be sort of sketchy."

Father Sherman had been quietly digging around inside his nose while Hauskyld spoke; he paused to lick a finger, and then said, "So it would seem—ahh—that you need more information to be of any help of any



kind, I suppose? What would you do if—ahh—you were to receive my permission for a little expedition? Such as you had proposed recently.” Sherman blinked hard a couple of times, as if the idea had startled him as well.

“What’s the catch?”

“Do you want to do it? I know we haven’t had much use for a xenist around here—”

“Yes, of course I want to!” Hauskyld was beginning to wonder whether the old man actually was senile.

“Well, it wasn’t clear to me, Brother Hauskyld. Sometimes you Mbweists are awfully hard to get along with. But yes, I think we can see our way clear to, ah, permitting you. Especially in the light of some circumstances that have changed.” The old man leaned forward. “Please understand, I don’t care if you kill yourself ordinarily, but you’re the last surviving xenist in the expedition. That was my only, ah, grounds for refusing your request. But now that the Templars have already—ah, hinted that sterner measures than the Aquinians take might be, ah, taken to secure this world—” He shrugged. “If you hadn’t come right away, I’d have sent for you.”

Hauskyld sucked in his breath through his teeth. “When’s the ETA on the Evacuation Gate?”

“About half a local year—next winter.”

“Oh.” Hauskyld thought hard. Though subjective time within a Gate was zero, the universal limit of light speed still held—the new arrivals had left the Archbishopric seventeen years before. If a Survey Expedition was in trouble, by the time word reached its base it would be many years too late to send help. To overcome that difficulty, the Archbishop sent an Evacuation Gate—a Gate with a second Gate inside for the return trip—once the full Survey Team was in place. If everything was fine, the expedition simply loaded documents, samples, and personnel due for rotation into the Gate, which then returned to the Archbishopric. If the situation had become dangerous, the entire expedition could leave on the Gate. And if nothing answered the Gate’s radio hail, the Gate headed back on its own.

And if either of the latter two happened, the world could be opened to the Templars for “domestication”—ecological reshaping and genocide.

“So,” Hauskyld said, and let it hang.

“There are other, ah, considerations as well,” Sherman added. The lights went out. For a moment Hauskyld thought the commander had accidentally hit the light switch and was now fumbling around trying to find it again, but then the screen lit up.

The helmet-mounted camera shook hard once and then steadied. On the screen, a griffin swept its head back and forth, beak open to slash.

A dead Randallian still clung to its back, one of the big bulging eyes smashed and a shredded hole torn in the chest between the lower pair of arms.

The griffin itself had taken a ballista bolt through its left wing; the little parasol wing at the tip of the main wing had been smashed, and the bolt had shattered the elbow joint. The right front leg was broken, probably from the strain of landing with the Randallian still mounted—normally they jumped off an instant before landing.

The picture leaped into an enhanced closeup of the griffin's head. The naked scaly face gave the odd effect of a mask, the heavy bone ridges around the big faceted eyes skull-like, and the head like a snake's with a buzzard's beak. The griffin's beak was moving; Sherman switched up the volume.

"Thtay back. Thtayback'y'bathtardth'r'wll dropperthsnake."

Sherman played that moment over. Allowing for the high palate, the accent was actually slight. *Stay back you bastards or we'll drop our snake.* The griffin was talking.

"Amazing . . ." Hauskyld whispered.

The griffin backed away. "Stay back," it repeated. "Leave us alone." Then its beak flashed down, slashing through the big muscles on the chest into the artery; blood gushed out, it fell forward, and it was dead. Underneath there was a brief squirm as the handsnake bit itself.

"Well?" Father Sherman asked, switching off the screen and bringing up the lights.

"This is easily the most remarkable thing we've ever found," Hauskyld said slowly.

"Is there any chance that the griffin is just talking like a parrot, or a Bukharin clangbeak?"

"Just about none. The use of the phrases is too exact, there are no stray words, and the phrases are too close together in meaning—remember clangbeaks can't remember two phrases that mean close to the same thing. And—" Hauskyld whistled "—he made a threat with an 'or' in it, didn't he? Stay back or I'll drop the snake? Sure. That's too sophisticated logically for an instrumental mimic like a clangbeak to act on, and it's unlikely that a pure mimic like a parrot would use it at the right time. No, he was talking. He's intelligent. I guess that shouldn't be a surprise; we knew their brain was a little bigger than a chimp's and a lot more sophisticated."

"I think I could depend on you to make a solid xenic case against Randall being domesticated," Sherman said.

"Yeah."

"Well, for political reasons, my own Aquinian Order would not care to see that happen either. So I think your going out into the field again

—ah—is absolutely imperative. There is, however, one minor matter. I still might face a reprimand if I lost our last surviving xenist. You see how that would look, of course.”

Hauskyld scratched his head. “It looks a little suboptimal to me, too. But I really don’t mind taking the risk. My God—excuse me, Father—do you know what this implies? There are still less than a hundred intelligent species known, at least within our local event horizon, and only three of them, counting the Randallans, share planets with other intelligent species—and for that matter, I wouldn’t be surprised now if it turned out the snake was intelligent . . .”

Sherman nodded. “More additions to your distinguished career. The Church has of course not forgotten your two other First Contacts.”

“Damn it, I mean that this is potentially the biggest discovery in history, no matter who makes it. And if the Templars get called in—”

“Yes. But, as I said, on the other hand I can hardly want to be the commander who lost Hauskyld Gomez.”

“That’s my risk, the same as always.”

But the old man seemed to be plodding along in his usual way. “Certainly. And of course whatever risk is involved in being the commander responsible for your loss would be mine, as always, and that would hardly be a terrible thing, if, ah, the record showed you, ah, volunteered to go . . .”

“Sure. No problem.” If that was all he wanted—but of course it wouldn’t be. “So what else is it you want me to do?”

Sherman began to shake. It took Hauskyld a moment to realize that he was laughing. “We had something unusual come in in this last shipment—ah, besides the Templars, that is. I’m afraid it seems to have taken up space that would otherwise have gone to religious instructional materials . . . but then our missionary program has not been an overwhelming success, has it?” He smiled. “There was a stowaway in a canister.”

Hauskyld shrugged. “Just press him into service—you’ve got conscription authority and it’s the standard procedure.”

“But this isn’t quite a standard stowaway—not a debt-skipper or an escaped felon. What we seem to have gotten this time is a doctor of xenics.”

“Why would a *xenist* stow away, instead of just volunteering?”

“Well, one that wanted to come here, specifically to Randall, from Mars, might—”

“From Mars? A *Communist* planet?”

“Ah, yes. Specifically from Olympia University. What I want you to do,” Sherman said, “is take her along with you. That seems especially advisable since she asked for you when she got here.”

"She?" he said, very suddenly and loudly.

"Yes . . . if you would come out now, dear?"

The woman stepped out of Father Sherman's private prayer room.

"May I present Comrade Doctor Clio Yeremenko, formerly associate professor of xenology at Olympia University on Mars, League of Communist Planets?"

"Delighted to meet you." It had been about thirteen years subjective—probably more than eighty years Main Track Time—since Hauskyld had seen a woman. But he was quite sure anyway—she was beautiful. Her eyes were large and green, her hair dark, her nose pleasantly hooked, and her body was plump in a way he thought perfect. It was an effort not to stare. "I'm Brother Hauskyld Gomez of the Brothers of Saint Mbwe."

"I know," she said. "I've come a long way to meet you. I want to work with you."

"A remarkable suggestion," Father Sherman chimed in. "It seemed to me so apt that I wanted to make sure that no chance for it was lost through, ah, for example, any commendable but excessive modesty on the part of Brother Hauskyld." He nodded a couple of times, very firmly, as if affirming the point to a small child.

"Wait a minute," Hauskyld said, "you don't mean that—"

"You will notice," Sherman pointed out, "that it neatly resolves all sorts of problems all at once. First of all, it removes, you'll, ah, excuse the expression, a temptation from the fort here. Further than that, it, ah, makes best use of the human resources at my command here. As Brother Hauskyld has pointed out any number of times, there is a true paucity of good xenic material upon which to base the decisions I must make; it was for that reason that I had consented to his going out, even though he is our last surviving xenist. Your, ah, expertise in these matters can thus be put exactly where it is most needed, and let it be added under the supervision of an older, highly experienced, and shall we say not without fame person. Thus you get almost precisely what you wish, I gain a second xenist for this expedition—and as it so happens two is normal under the Protocols for an, ah, Hostile Contact, and of course Hauskyld gains some company and assistance for this expedition."

"Now I know," he went on, looking directly at Hauskyld, "that certain, ah, considerations of modesty do intrude here because despite being an older and somewhat more experienced individual Brother Hauskyld is shall we say not so advanced in years as not to feel a certain temptation. For that reason he might have been tempted, ah, to decline. But as it is it seems to me that this is, ah, so perfect a situation that—regrettable as it might be in ordinary circumstances—I think that we need to consider your generous offer, despite whatever, ah, purely personal though quite

commendable motivations Hauskyld might have for declining." The old man again stopped and blinked a couple of times, smiling as if he had just been complimented on what he had said.

"So I get to go," Clio said quietly.

"Yes," Sherman said. "You do. I'll need your signature on a couple of things—waiver of death liability, application for citizenship in the Christian systems, and so forth. But as soon as we have all of that, or as fast as Hauskyld can assemble things after that at any rate, you can, ah, head for the wilds. And with my blessings." He nodded once more, firmly. "I take it it's settled then."

Hauskyld bowed; that was as close to a direct order as Sherman ever gave. Copying him, Clio also bowed. He noted that with approval—at least she was quick on the uptake in a strange situation.

"Oh, and just temporarily," Sherman said, "I'm afraid you will have to stay in a cell in the brig. My hands are tied by standing orders of the Archbishop and of my order on unauthorized female visitors. And it will be just until your departure, which should be within a day or so."

Hauskyld was never really sure whether the old man really did get him out the door that fast, or it was just his own shock that kept him from complaining about the short time to get ready.

"If we're trying to get their attention, why did we go out the back gate in the middle of the night?" Clio asked.

It was the first thing she had said since they had set out two hours ago. "Because back there it's a war zone. If the Randallans see anything that looks like us, they kill it without any time for questions. Once we're out of the battle area, things are likely to be different; then we can hope to meet one, surrender, and start talking."

"What if they just decide we're spies?"

"Then we're dead." Hauskyld considered not telling her, but it *was* a xenic problem and she was a xenist. "I think. You could say they don't take prisoners. Or they don't anymore—when the war first started, they took a lot of prisoners. Once we were bottled up in the fort, they sort of . . . crucified them, out in front of the fort."

"Sort of crucified them?"

"They tied them to crosses and left them there. A couple of Aquinians volunteered to go out and try to get them. The Randallans didn't fire a shot. The volunteers just untied them, and then several of us went out and carried them in—after a few hours on a cross, they couldn't walk.

"The next day there were more prisoners up on crosses. We went out and got those too.

"Then Sherman got this idea that perhaps we could use that as a cover for a sortie. When the next group of prisoners was put up, three troops

of cavalry went along, and they made a surprise attack from the ridgeline down into the Randallan camp. It was successful, I guess—except that the next day, there were more prisoners up on crosses, and the Randallans were dug in all along the ridge. We never even got close to the prisoners. It took some of them all day to die.”

“They died of exposure in just one day?”

“Suffocation. You can’t breathe hanging forward by your arms. Sooner or later your muscles get too tired to hold you up against the cross, and then you fall forward . . .”

“Oh.”

“That’s how the bishop died. Sherman had to watch that.”

“Were they close?”

“Sherman had been the bishop’s exec for forty years. And rumor has it they were lovers.” Hauskyld shrugged. “He’s been falling apart ever since—you saw what he’s like. He used to be one of the most competent people you’d ever hope to meet.” He steadied her with his arm as they went over a pile of broken rock. “Anyway, they probably won’t think we’re spies. This has worked often enough that it’s worth a shot; it’s how I got one of my First Contacts, the one with the gabrieli.”

He was hoping that she would ask him about that contact, but she didn’t, so they continued on for a while in silence. Isolde, the largest of Randall’s three moons, was rising low in the east, a little past half; Tristan, a close-in moon whose synodic period was less than half a Randallan day, was shooting up the sky in the west, visibly moving if you stopped to watch it, waxing as it went. The moonlight was blue-green and barely reflected from the redrock; the hills and distant peaks appeared in black silhouette against the softly glowing sky.

“Where’s the Home System?” she asked. “I’ve been through six stations in two years subjective, and I’ve always gotten a chance to look back at it.”

“See that constellation—the bright stars that sort of look like the horse from the *Guernica*? Right in the center of the dark space that forms the forehead. But you can’t see it tonight—you need a perfectly clear night with none of the moons out. We’re just barely at the point where the human eye can see it at all.”

“Strange,” she said. “The frontier is spherical—so right now people have just reached that distance. In another hundred years, when the frontier is ten light-years further out and no one can see the Home System, I wonder if the frontier worlds will even hold Holocaust Day anymore.”

“We call that the Feast of Uncounted Martyrs; considering we’re still commemorating the Protestant Saints eight hundred years after the Rejoining, I suppose we will in Christian space.”

She smiled at him; he liked that a lot. "Then maybe I'm in the right part of space after all. I can still remember staying up for Earthrise with my parents when I was little . . . I'd like to think the tradition will keep going."

He smiled back. "If you like tradition, then, yes, you're in the right place."

They walked for the remaining four hours before dawn in silence—probably not a bad idea since no one knew how good a griffin's hearing was. There would be time to talk later, anyway—he would tell her about his two First Contacts then.

Though of course she already must know something if she had come here to work with him as she had said. She claimed, anyway, that she could have done her research on several different worlds, but she chose the one on her list that had the most prominent xenist assigned to it; not hard to do, since expeditions were planned literally centuries in advance. How she had lived in the Commonwealth, a stowaway and an illegal, working from port to port, zigzagging her way here through the relays, she hadn't said.

Just at dawn, they came to the canyon. Redrock was soft and crumbly; "besides, rain here is fairly acid from the extra carbon dioxide in the atmosphere, and with the low terminal velocity for rain and the low gravity to power the rivers, you get these wide, deep canyons with shallow sides," he explained. "Erosion is more chemical and less physical than in most deserts."

"Did you ever teach?" she asked. She pulled her hair back and fanned the sweat on the back of her neck. "Like a lecture course or something?"

"No, I've always been in the field. Why?"

"Just wondering. Well, it looks like there's an easy way down. Any risk of a flash flood?"

He checked his watch. "Not for five hours and nineteen minutes."

She stared at him.

He shrugged and pointed to the two moons overhead, now nearing each other. "Three largish moons, and a big sun we're close to, plus a thick atmosphere and low gravity. Weather here is tidally coupled; you can always predict it exactly. So I know when the next thunderstorm is due."

She nodded. He hurried to catch up with her as she started down over a rock fall into the small side gorge.

The sun was full up when they reached the bottom a few minutes later. "Kind of like home," Clio said. "The sun comes up fast."

Hauskyld nodded. "Desert anywhere is that way. If you get up north of here, into the coniferous forest around the Barbara Allen Range, you'll see those long, slow sunrises."

She nodded. "It's hard to remember that this planet has a full biosphere. This desert looks a lot like Mars—I keep trying to adjust my respirator."

"I thought Mars had been terraformed."

"It's in progress, which is a fancy way of saying that maybe by 3000 A.D. there'll be air you can breathe and standing water. Right now—I mean when I left, 120 years MTT ago—all there was, was a lot of algae, some modified earthworms, and the deep-rooted cacti. Still not even enough oxygen for a lizard." She shook her hair again, lifting it away from her neck and face. "I can tell I should have cut this stuff off. It's starting to get hot."

"It'll get hotter—clear up to twenty-five degrees or so."

"By Martian standards, that's hot, all right," she agreed, pulling her alweather off her shoulders. "But I thought there were inhabited places where it goes to thirty-five or forty every day—"

"There are, but they don't have our CO<sub>2</sub> content. It's harder for terrestrials to keep their body temperatures in line around here." He waited for her to say something further, but that seemed to be all she really wanted to say. After they had walked a while longer, and were moving comfortably along the flat, hard bottom of the dry river, he decided to just bring it up and see what happened.

"Clio?"

"Yes?"

"Why did you actually come to Randall?"

She looked down at her feet for a few steps. Finally she said, "Well, there was a Natal Draft in force, and I had to get off Mars if I didn't want to get stuck pumping out babies."

"And you ran to the *Christian* worlds?"

"I didn't want to wear five layers of blankets and walk ten paces behind, so the Islamics were out. And I couldn't stow away to another Communist planet because they'd extradite me."

"I don't want you to think I don't believe you, but it seems to me that there had to be less drastic things you could do. And there had to be some reason you picked Randall. There are plenty of frontier worlds, to begin with. And I'm sure you knew you could have simply asked for political asylum—it's routine for people with needed academic specialties. You could probably have gone straight into a university teaching job or government service somewhere, and I'm sure that you were aware of it, because most people don't jump a hundred and twenty years into the future to a just opened-up planet on a whim."

"Now, what's on Randall? I'm sure it's not me because, flattering as that might be, I doubt very much that you had any basis on which to decide which frontier world would have the 'most famous xenist' by the time you got here."



He was suddenly, uncomfortably aware of how much he liked it when she smiled. "You were a good bet all the same." She sighed. "I've been keeping my secrets a long time. It's not easy to give them up now." She hooked her thumbs in her lower front tunic pockets. "I think I'm going to make a major discovery here—one that'll put my name up there with Chang, Nkaampa, Mbwe, Mossadeq, and—" she winked "—with Hauskyld Gomez. The trouble with it is, it's an idea that anyone can get—if I'd told it to a funding agency, it would have been somebody else that did the work. And if I did it entirely by myself, it might not have gotten proper attention. So I needed to get out somewhere where I could do fieldwork on it—in the presence of a big name, and without filling out any forms before I went."

Hauskyld slowly chewed that over for a while. In a general way, he knew how scientific funding worked in the Communist worlds—labs and institutions competed for government funds, and within each lab the individual scientists competed against each other. The Jeffersonian Marxist ideal was that everyone competed against everyone with rewards for those who could best serve society. In practice it meant competition for everyone, rewards for a few, and very little real service. The Christian system—a standard research stipend for each scientist—bred deadwood and discouraged large projects, but it didn't create the thievery and sycophancy that was standard in Communist space.

By midmorning, the sun was higher in the sky, and their tunics were getting wet with sweat—something he tried not to notice about Clio. They stopped for a water and food break. "One more set of dry rations and then we start living off the land," he commented.

"Why didn't we do that in the first place?" she asked. "This stuff is pretty tough to chew."

"Wait till you try diggerfish. *That's* chewy. The idea was to not have to look for food during the first day and a half. Same reason we took a big shot of wakeup before we left. That way we get further away from the fort—and the war—faster." He took another swallow from the water bottle and looked up the walls of the gorge. "That break up there looks promising—by that rockslide. There ought to be a spring just north of it if I'm reading the satellite map right, and we can camp there. It's about time we headed north again—we've gotten around behind the main camps now, so we ought to have a straight shot into some civilian areas. Better place to start contact."

"I'm glad *some* of the theory they gave us isn't out of date. With the frontier forty light years away when I left, the Home System is getting more out of date all the time."

"So am I. I haven't read a journal article in nine years subjective—and

more like thirty MTT. There must be seventy more documented intelligent species by now, given how big the frontier's gotten."

"I haven't read much of the recent stuff," she said. She stood up and put her canteen away.

"I thought you had a doctorate in xenics."

"I do. But my specialty wasn't ethno. I do transtellar ecology." She started off in the direction he had indicated; he followed her, catching up in a step or so.

"Isn't that—"

"Yes, I know. That's usually a desk science." And that was the last thing she said before they pitched the tent and went inside to sleep, leaving a flashing beacon to attract the attention—they hoped—of Randallian civilians.

Clio shouted his name. There was something large and heavy on his chest, and it had a grip on his legs as well.

He found himself staring into the huge faceted eyes of a Randallian. He pushed up against it, trying to twist out through the thumbs before he remembered that on a Randallian those were on the opposite side. Reversing and switching, he freed his arms for a moment and struck upward at the sensitive eye facets, but the Randallian blocked him with its forearms; the middle limbs reached down and took a cross-handed carotid grip, squeezing gently until the Randallian caught his hands again.

He thought he would pass out—to his left, he felt a press of Randallians, and thought at least two of them must be on Clio—

The Randallian released the carotid hold a little, and pressed Hauskyld's hands down to the floor of the cave. Something warm, smooth, and dry slid across his arm; he looked up and saw a bright orange handsnake using its articulated fins to tie his arms with a cord.

Something was fiddling with his ankles. He tried to look, but couldn't see past the Randallian; from the awkward, heavy feel of the hands on his ankles, he judged it was a griffin. Clio was sobbing for breath.

*She is hurt?* The sound was in his mind.

"Don't know!" he gasped.

*Ask her.*

But now he was too amazed to speak. The handsnake nudged his face.  
*Ask her.*

"Clio, they want to know if they're hurting you—"

"No, they're not. They're scaring the shit out of me, though—"

*Tell her neither of you will be harmed.*

"They say they aren't going to hurt us."

"Great. That makes me feel wonderful."

He felt a rumble of what seemed to be laughter inside his mind. This was one more thing to add to the riddle. Telepathy had been observed on a few worlds, of course, and contact telepathy was much the most common form, but—

*What a strange notion. Where are these other places? I can't get a clear picture from your mind. Perhaps there will be time to talk about this later.* The handsnake wriggled off Hauskyld's arms and disappeared into the griffin's pouch; two Randallans slid a plank under him and tied him to it securely across the chest, waist, and thighs. He looked left. Clio had been tied in the same way.

Two Randallans picked up each plank and carried them into the sunlight. Hauskyld felt himself being lifted at an angle; they had set him on the back of a gash'hwar, the big, hairy Randallan beast of burden. Quickly they tied his plank to an improvised rope harness. Meanwhile, others strapped Clio to another gash'hwar's back.

Now that he could see all around him, Hauskyld realized there were nine triples in all. Since they hadn't been killed outright, they had at least become prisoners as planned.

"Clio, are you okay?"

"As much as I can be."

A leathery palm covered his face. "Please quietness. All us your promise are want you run-away will not."

Hauskyld nodded, and answered in Randallan. "My honor is pledged to my word."

The Randallan bowed, then turned and spoke to the others. With loud, leathery flapping, three triples took to the air to circle overhead. Another three, with the Randallans on foot, spread out around them, two triples in front and one behind, about forty meters away from them on all sides. The remaining three Randallans stayed with the gash'hwar; besides the two gash'hwar carrying prisoners, there were about a dozen laden with packs. They set out at a comfortable walk, climbing up the fresh rockfall, heading north and east across the desert. That, at least, was encouraging—it was away from the fort.

It took several times through the Prayer of St. Mbwe, and he had to reach for a fairly deep meditative state, but he finally was able to bring himself to the state of calm, accepting alertness he needed. The kilometers of desert rolled by, each much like the last, the weird badlands of wavering hills and bent spires, exaggerated by acid rain, soft rock, crustal tides, and low gravity, all blending together in his mind; the Randallans and griffins walked on in silence, trading positions every hour or so.

The sun was low in the sky when they entered the big canyon. The gash'hwar forded the summer-shallow creek and stepped onto ground

that was somehow different. Hauskyld twisted as far as he could and saw that it was paved. Shortly after, the first buildings appeared.

They passed several fortified towers. This was a garrison town, then—though nominally every Randallan was ruled by the High King, banditry persisted in the back country, and forts like this were needed to guard the Royal Road near here.

Past the outer defenses, the road was lined with vendor stalls, each hung with the bright pictographs that indicated what would be traded for what—he wondered how long the one who wanted to build two coffins in exchange for a used tent would have to wait. The scent of roasting meat from several stands made his stomach roll over in hunger.

Once they stopped to let a large troop of soldiers pass by. To judge by the scars and the general wear on their harness, these were veterans returning from the battle lines around the fort. They all carried large bundles—bales of finished hides, woven blankets, even the sort of small clay pot commonly used for gemstones. Those were all trade goods of great value—perhaps the siege had pulled too many troops away from fighting bandits, and this was just a merchant convoy, but then how had they procured troops like these? Or perhaps this was the payroll, on its way to the camps. He desperately wanted to ask.

The elaboration and quality of the buildings improved as they moved into the city. Randallans didn't normally wear clothing, so it was hard to tell a wealthy from a poor one, but clearly this was the richer part of town—the houses were bigger, and featured large basking decks for griffins and handsnakes, and climbing bars and swings for the Randallans. Two big villas had swimming pools as well.

Something caught Hauskyld's attention. He twisted to get a better look.

A young Randallan, its fur still light brown, was engaged in some kind of angry argument with its griffin. Both were bobbing and weaving, the Randallan holding his upper arms over his head, the griffin rearing his head back with beak open. The little handsnake darted back and forth between them, touching each of them, apparently in a panic.

From all around, adult triples rushed in. Within seconds, the young combatants were separated and surrounded. Hauskyld would have liked to see what happened then, but his captors ignored the whole noisy business, carrying him on past the incident and further through the town.

They turned right into a narrower, downward-stepped alley. There was another abrupt right turn at the bottom, and they faced a solid plank wall, about thirty meters high, flanked by two wooden towers set against a mortared stone wall. Ropes and wooden pulleys creaked, and the plank

wall rose slowly to the top of the towers. They passed under it, into a broad, sandy yard surrounded by natural rock walls.

Hauskyld felt hands on his bindings; he slid down the board to the ground. He sat up, rubbing his wrists to get feeling back, and saw Clio seated a couple of meters from him. He breathed deeply, once, and leaned forward to rub his ankles. Two Randallans carefully set the humans' packs down on the ground near them, not even looking inside for weapons.

Then, without a word of explanation, their captors gathered together and went out through the gate again. The plank structure rumbled back down the towers and settled with a thud into the narrow channel, perhaps a quarter meter deep, at the bottom.

"Hauskyld? Are you all right?" Clio was up on her knees, swinging her arms loosely.

"I think everything's gone to sleep. Give me a minute to rest here. How are you?"

"Pretty well, considering," she said. She crawled over to his side. "Would you like me to rub your arms and legs?"

"Always," he said, smiling up at her.

"You're sweet." She crawled over and chafed his wrists and ankles lightly between her hands; sensation was coming back into them. His shoulders were going to be sore too.

There were half a dozen Randallans, four griffins, and even a couple of handsnakes in a wide circle around them. Following his stare, Clio looked up. She gasped a little.

"I don't think we're in any danger," he said. "I don't know for sure, but I'm almost certain this is a jail." He sat up. "With a little luck, those caves in the walls are the cells, and there will be one open for us. If you can walk, we might as well get moved in."

Hauskyld woke up a little after dawn the next morning. Clio was still sleeping; he stood over her, looking down at her body. In the warmth of Randall, they had both slept in tunic and underwear. Her face had a soft, damp look to it—he wondered what it would smell and taste like, especially around the full, red lips. A few stray hairs stuck out from the crotch of her underpants, and the cloth clung to her there, showing more than it hid. He crouched, staring, till the rising pressure in his own crotch brought him back to his senses.

He dressed and went out into the yard. Taking inventory, he found that his wrists and ankles were still sore but usable, and his shoulders had settled down to giving him an occasional needling twinge.

It had been a long time since he had prayed regularly while on expedition. Saint Mbwe had recommended doing it twice daily, as a practical way to preserve objectivity. He knelt in the deserted courtyard and

listened to his breath as he slowly exhaled each word of the Lord's Prayer. A deep peace settled onto him.

He thanked God for Clio, for letting him be out of the fort, and for sending him to Randall, and finally made the Prayer of St. Mbwe. "Lord, give me understanding where there is none, and let it flow from me to every soul until peace is complete throughout the universe. Let me see every soul in its—"

Something hit the back of his head. He hit the ground hard and rolled over, bringing his arms up to guard his face.

A griffin standing over him kicked his chest. As he flinched back, another griffin on the other side kicked him lower down, in the floating ribs. Then he doubled up as a Randallan slammed a fist into his unprotected belly.

The Randallans and griffins surrounding him beat at him with their hands and feet; Hauskyld drew deep, slow breaths, careful not to lock his trachea, relaxed, and let his arms and legs go limp and warm. He tightened his abdomen as much as he could and settled back to take the beating passively. They slapped, punched, and kicked him on his chest and belly, arms and legs, but they avoided his face and genitals.

The battering acquired a rhythm and he let his body cooperate with it, accepting each blow with only the resistance needed to prevent internal injury. His arm muscles were sore, his ribs throbbed, and his belly felt stabbed and torn. He let them continue.

Finally, they quit, and a handsnake crawled onto him. *You are not to do this talking-to-Jesus.*

"I understand."

*You will comply?*

"I understand."

The handsnake crawled off him, and they resumed the beating, slamming him with their hands and feet, bruising him everywhere they could without risking permanent damage. They rolled him over and beat on his buttocks, avoiding the tailbone. They slapped the skin on his back until it was bright red, avoiding the spine and kidneys. They were swift, certain, and methodical, but careful of anywhere where permanent injury was possible. Somewhere in the haze of pain Hauskyld thought that they must have dissected some Terran cadavers to know so exactly what to do.

They rolled him over again. A Randallan sat down on his chest and slapped him repeatedly across the face, hard enough to whip his neck around, forehand-forehand, backhand-backhand, forehand-forehand again. After ten slaps or so, his head was aching and his jaw was sore, and he was more relieved than he wanted to admit when the handsnake crawled onto his chest.

*This will happen to you every time you do this talking-to-Jesus.*

"I understand."

The handsnake crawled off and slipped back into a griffin's pouch. The gate rumbled up again, the guards departed, and again it slammed down.

Aching everywhere, Hauskyld rolled over and got up, brushing the gritty red sand from his face; his jaw was sore, but none of his teeth seemed to be loose. His face and ribs felt pulpy and tender, but he didn't think any bones had been broken.

When he went back into the cell, Clio was fiddling around in a small basket. "Hi," she said—then looked up again. "Shit, what did you do to yourself?"

He sat down. "I had help. I was praying, which it appears the guards take exception to around here. They beat me up."

She got up and hobbled over to him. "Anything I can do?"

"Not unless you've got a hot bath hidden in your pack."

"Not in my pack, but I've got one right around this corner." She smiled at him. "I've been exploring our little cell here." It wasn't sophisticated, but it was definitely a bathroom. A large stopper closed the pipe; water emptied from it into a small basin with a stoppered drain, which emptied into a large circular tub, which in turn emptied into a trench in the floor with a wide drain. "I think," she said, "this is supposed to be sink, tub, and toilet, in that order. At least that's how I plan to use them. The water's quite warm and tastes mineral—I think it must come from a hot spring. There's not much pressure, but I imagine you could fill that tub in about a quarter hour." She transferred the stopper from the inlet pipe to the tub; a thick stream of water gurgled into the sink and fell through the drain into the tub.

The water was pleasantly hot. The tub was filling more rapidly than he had expected, so he took off his tunic and peeled off his trousers. He had taken off his undershirt and underpants before he remembered Clio was there; since she didn't seem embarrassed, he decided not to be.

"Want me to wash your back?" she offered, as he got in the tub.

"I'd love that."

They didn't say anything for a long while as she rubbed his back with the warm water. The touch of her hands on his aching back was a strange ecstasy.

"Phew," she said. "You could use some soap to do this right."

"Yeah."

"Well, your back is about as done as I'm going to get it." She poured the warm water over his head with her hands. He leaned back and immersed the back of his head, shaking it in the water.

"Hard to believe we're just two days out of base," he said. "We've been busy. What was in that basket?"

"Food, I think, but I don't know the local diet. They left it just inside the cell door." She went and got the basket.

"Well, you're right, it's food." He held up a small, flat cake. "This is phel'leth, the local version of bread. Fairly tasty. Those are boiled diggerfish—tough as an old shoe but not bad for flavor. These are gripper seeds." The squashy little objects were about the size and color of water chestnuts. "You can pretty much live on them all the way across the Spens Desert."

He lifted up a few solid strips of green, fibrous stuff. "And this is gritha, a kind of seaweed, supposedly very nourishing, actually very cheap. Poor folks' food—or prison chow—the equivalent of rice and beans." He looked through the basket. "And that seems to be it. To judge from the amount, this is supposed to last us the day, assuming they don't mean to starve us. I suggest we have the gripper seeds for breakfast. They don't keep as well as the other stuff." She nodded. "If you'll get my knife from my pack . . ." He split the phel'leth with the knife and made sandwiches with the gripper seeds.

They ate in silence for a while. A thought struck him. "Hey, I wonder why they let us keep our knives?"

"Probably because there isn't much we can do with them, between the sheer walls and the size of that gate. Why were you praying, anyway?"

"Seemed like I should."

"Oh."

Hauskyld thought of asking her why she'd asked the question, but then decided he might not care for the answer. He finished his sandwich and lay back in the water.

"I was going to ask," she said. "Isn't this whole area awfully wet for a desert?"

"Yep. On most worlds it would be grassland. But there are no grasses on Randall."

"Ha!" she said.

"Ha?"

"Right according to prediction. No parapisceans, either, right?"

"No, there aren't." He smiled at her. "Am I working in the capacity of famous xenist witness now?"

"You've got it."

"Famous xenist?" a voice said. They turned; a Randallian stood in the doorway. "Good place. I was in prison, and you visited-ed me, right, Father?"

"I—yes, that is right," Hauskyld said, nodding.

"That go to show you Jesus was big fh'ool! Are not good place. This are shitpile! No Jesus here." He threw his head back and made the clacking/burping noise that meant mockery. "What you say, Father?"



"I say if you'll sit down and explain yourself, I'll be happy to try to understand what you're saying. Why do you think he's a fool?"

"You Jesus are say what are not true."

Hauskyld kept his voice as low and even as possible. "Oh, what did he say?"

"'Blessed are the mercif'hul, for they shall obtain mercy.' Not true. That are not happen. 'Blessed are they that mourn, for they shall be comf'orted.' I are mourning this year and a longmoon more and there is no comf'ort. So you Jesus are big f'hool!" He vented his mucus gland, spitting a blob into Hauskyld's bathwater.

Hauskyld leaned back away from the gooey, egg-sized mass, hoping it would float over and stick to the side of the tub. In Randallán, he asked, "May I know your name, and what poisons the wound in your heart?"

The Randallán sat down on one of the larger rocks, bracing himself with his middle arms. When he finally answered, it was in Randallán. "My name is Thkhri'jha. I am xhu'gha."

The word "xhu'gha" shared roots with the words for "solitary" and "criminal." It was apparently basic to the culture and mildly taboo. It was a common insult; he had tried and rejected "outlaw," "widow," "bastard," and "masturbator," as translations for it.

As he was frantically groping for something to say, the Randallán said, "You Jesus was not a xhu'gha; how was he are knowing?"

"We live in the faith that he knew all things," Hauskyld said. "He died in shame and agony."

"Fhuckh." Thanks to the Aquinians, that was the one word that had definitely crossed over into Randallán. "Dyings are nothing. Not die, are shame, are—what are agony?"

"Agony. Big pain." He tried again in Randallán. "Is my understanding of the True Speech so poor that my friend cannot speak it with me?"

"Your accent is strange, but you speak well enough. I know I do not speak my friend's speech well, but there are not the words in the True Speech for the things I need to say. There are perhaps no words in any tongue."

"That is a difficulty, always," Hauskyld agreed, hoping to keep the conversation to Randallán. "We have no word for xhu'gha, for example."

"Have you no xhu'ghawi, then? You are a blessed people who know no sorrow or dishonor, then, and perhaps this Jesus is less of a fool."

"I cannot say. You must explain the word to me." Hauskyld leaned forward, almost touching the floating snotwad before he noticed it.

"We are not sure ourselves of what the word would be in your language. We thought at first it might be 'on-foot.' Then we thought it was your word, 'alone.' Last, we thought it might be your word, 'horny.'"



Hauskyld discreetly slapped the water a little, so that the wave stuck the booger to the side of the tub above the water. He felt like singing—this was the first real clue he had had, and there was an almost standard procedure for this. He asked in Randallan, "Could my friend tell me what event it was that caused his friends to believe these things?"

"The first time, it was one of the followers of the one they call Father Sherman. His pony, which at the time we called the 'stupid-brother,' had thrown him off and run away. He said he was 'on-foot.' But we discovered he felt no shame; that the stupid-brothers are not much like brothers.

"Then it was the Jesus-teacher they called Father Thomas, at the Mission Station over in Gh'ra'ith. He spoke little and sat by himself much of the time; we asked him and he said he was 'alone,' and since we saw again that he had no brothers, we thought that perhaps was it. But the rest of you did not shun him, and the one everyone called 'Shrink' came and talked to him, and saw no shame in him, so that, too, was not xhu'gha.

"Then we were talking once with the followers of Sherman, in my friend's speech, and we asked why the one called Harwyd was so angry all the time, and why the others mocked him, and they said that he was away from one called James, and this made him 'horny.' "

Hauskyld suppressed a smile. Somehow this all added up—"I believe that I understand the word 'xhu'gha,' if my friend will concur. Is that the word that refers to one who is without the brotherhood of a griffin or a handsnake?"

The Randallan threw back his head and screamed, a piercing whistle that felt like a spike through Hauskyld's skull. "Do you speak of such things?" He whirled and ran blindly out of the cave, middle arms flailing the ground to balance himself.

"Wait!" Clio said, but he was gone.

"He'll be back," Hauskyld said.

"He didn't act like it."

He shrugged. "In general, if there's one thing any intelligent species wants to do, it's explain itself. Besides, *he* came to *us*. That means he has something to say."

"I wish I had your confidence. What made him so angry?"

"I think he came here angry," Hauskyld said. The water was getting cold, so he unplugged the tub and let some water run out, washing the blob of mucus down the drain. "I've gotten more real data in the last twenty minutes than I had in the years before. There's a whole complex underground side to this culture that none of us had any idea of."

"Well," Clio said, sitting down directly in front of him, "I can think of at least one reason why that might be."

"Oh?"

"I don't want to offend you," she said, taking his hands in hers, "but I think the problem here is that something about Christianity is offending *them*."

Her hands were warm and soft; despite her muscular build, the skin of her arms was soft and white, and he wanted to touch her there. "Really? What?"

She hadn't let go of his hands. "The idea doesn't bother you?"

"Not yet, anyway." He squeezed her hands and smiled at her. "It's been known to happen, although usually there's an immediate reaction. And if anything, Christianity seems to be unusually attractive to Randal-lans."

"Maybe that's what the matter is," she said. "The first people in any society to pick up a new religion are usually the outcasts, because being enlightened gives them an importance they never had before. Maybe you're messing up the social structure."

Hauskyld nodded. "That certainly fits in with the war."

She let go of his hands, but she smiled; he was struck again with how large and green her eyes were, and had to think a moment before he remembered what they had been talking about.

"Well, ah—" he had a distressing picture of himself as Father Sherman—"ah, there's not enough data, yet, anyway. We'll just have to wait until we get another chance to talk to our friend. Anyway, pretty good progress for one day. And I think the warm water's helping—I'm much less sore."

She smiled. "I'd like a bath myself." She stood up.

"If it turns out that they're offended by Christian doctrine, there's going to be all kinds of trouble," he said thoughtfully.

"Can't you just change the doctrine?" Clio asked.

"Well, maybe. It's not a good idea—it interferes with the development of belief in the early stages."

"Is that bad?" There was an edge of challenge in her voice. "I hope I don't offend you, but how do you justify adding a level of superstition to the culture?"

"Well," he said, "I'm sure you can see the political purpose behind a strong early proselytization effort."

She nodded impatiently. "Unh-hunh. That way you get effective control of the planet."

"Or a basis of common culture that will help them join the rest of the Christian Commonwealth," he replied. "And of course, if you asked a theologian, he might point out that they benefit by not going to Hell. I'm afraid it pretty much depends on where you're standing—the First Law of Xenics. What does the League of Communist Planets do when it moves onto a planet?"

"Well, modernization."

"Which is what?"

"Oh, free elections, civil liberties, common ownership of basic production, public education, civil service—that kind of thing. It's supposed to be just the minimum steps to move from an earlier mode of production to social democracy. That's not exactly the same thing as introducing a new layer of unfounded beliefs on top of the old one."

"Oh?" he asked, leaning back in the water.

She sat quietly for a long time. "I suppose you mean the old 'what-if-they'd-rather-be-feudal' argument. But that ignores their objective interests—"

"As defined by?"

She shook her head. "Common sense."

He grinned at her. "We call that right reason."

"Still," she said, "they do get a choice under our system. How do you justify the Inquisition and the Templars?"

"I don't. Speaking as a xenist, I can't. But—when you 'modernize,' which members of the species benefit? The new bureaucrats, the newly educated, the newly enfranchised—right? What do they depend on to support them in their new positions? Your Security Wardens and Naval Infantry. So is there really any chance that such a government would ever ask you to leave? Sounds like pretty effective control to me."

Clio grinned at him. "Why is it everything you say makes so much sense, but I don't believe a word of it?"

"Must've missed my calling. I should have been a theologian."

Clio ripped open the prestites on her boot. She dropped it to the floor with a clunk and leaned back to slip off the lined sock.

Hauskyld considered. Since there was no evidence to argue that this planet was still in a state of original grace, the Church would not classify it as Innocent. That left Unenlightened, Pagan, Infidel, and, technically, Visited.

He heard a little yawn and looked up to see Clio stretching. She bent to unfasten the prestites on the other boot.

Unenlightened worlds were ones with no trace of anything like a religion. Missionary work on them usually failed completely, but there was generally little friction over it. Pagan planets had many pluralistic faiths—they generally tolerated missionaries without difficulty and could be readily converted. Randall, unfortunately, might be Infidel—that is, might be actively resisting the missions. In that case, direct conflict with the Church could go all the way to domestication. In the process, God only knew how much valuable data would be lost.

Of course, if it could be shown that Christ had incarnated here on Randall . . . no such thing had ever been found, but though the doctrine

of the single Incarnation had its adherents, the category of Visited planet was still on the books.

There was a slight slipping scraping noise. He looked up to see Clio pulling her trousers off, just slipping the elastic ankle bands over her feet before kicking the pants the rest of the way off. She stood up again; his eyes had locked onto her firm, pale brown, muscular thighs, with much less hair than a man's, below the tunic. With a guilty start, he looked up.

She was smiling, an odd little smile not like one he had seen before. The corners of her mouth crinkled—he ached for how pretty she was—and her eyes twinkled.

She reached down to where her tunic brushed against her thighs and lifted it slowly, cross-handed. She was wearing plain gray briefs, like the ones Hauskyld wore; above them, a line of dark body hair ran up to her navel. She pulled the tunic over her head, and her breasts, full and round, dropped out of it.

He could feel his breath catch. He didn't know what to do—he couldn't imagine that she wanted him to watch her undress, but that she was doing this unconsciously seemed impossible. Her breasts were plump and looked heavy; they rose as she pulled the tunic up her arms. Her brownish-red nipples, at the centers of starbursts of stretch marks, stuck out like his own did when it was cold. For a moment, he wondered distractedly if she was chilled.

The tunic fell to the floor, rattling and clanking from its many full pockets. She was still smiling. Her hips turned slightly, swinging to the side. She slid her hands into her briefs and turned around, pulling them down, letting her bare buttocks show, a tuft of hair under them between her legs . . . and turned around, naked now. Female plumbing was certainly better protected than male . . .

She stretched, shaking her head so that her hair fell around her face. "Since I washed you, it only seems fair that I get a washing out of it." She got into the tub, sitting with her back to him between his legs.

He dipped some water in his hands, poured it down her back and began to rub gingerly. "You'll need to wash harder than that," she commanded.

He did. She pulled her hair forward so that he could wet her neck and rub it too. The washing became more of a massage; he grasped each muscle gently, lifting and pulling it as he worked. She sighed happily. "That feels wonderful."

"It feels good to me, too." He was leaning in close to her to smell the wet oiliness of her hair. He let a hand slide under the water, squeezing one of her buttocks a little. The softness of her skin was astonishing.

She leaned back, splashing the warm water up around the sides of the tub. "You might as well do the front, too."

He hesitated only a moment before she pulled his face around and kissed him; her mouth was open and he felt her tongue slide in to touch his. His hands were on her breasts, squeezing and stroking, and she was guiding him, showing him what she wanted. Hauskyld surrendered, amazed at the pleasure it gave him.

He was on top of her, kissing her while he stroked her big, soft breasts, pulling gently at her hard nipples. Her hand slid down to tug and stroke until he was hard. Her legs shifted under him; he slid forward and into her. "Clio, that's lovely."

"Thank you. Go deeper please—it feels good."

He raised himself up a little further and rocked his hips faster and harder; she wriggled to a more comfortable position, pulling his face down to kiss him again.

"It feels really good," she whispered.

"I love you."

There was a sudden piercing scream, right beside them. They both sat up abruptly. Thkhri'jha stood there, head thrown back and howling, "Jh'eezus! Jh'eezus! Jh'eezus!" He flung himself onto his face; his upper and middle limbs tore and beat rhythmically at the cave floor, and his legs lay limp behind him, as he chanted the name over and over.

Hauskyld slipped out of Clio, tried to stand, fell over backwards—almost into the toilet trench—and finally crawled to the Randallan. Hesitantly, he touched his shoulder and addressed him in True Speech. "Thkhri'jha, may a friend know what pain—"

"Forg'hive me! Forg'hive!" the Randallan wailed, his accent thicker than it usually was. "Hear me! Not let me be to you God forever lost!" He beat at the floor and sobbed again.

Hauskyld tried again, louder. "Nothing is beyond forgiveness," he said, again in True Speech. "Nothing! You have only to ask." He put his hands on the back of Thkhri'jha's head, stroking gently with his fingers. "My friend is confused and upset. He must calm down."

At first he thought he had not been heard, but slowly the Randallan relaxed, breathing more easily, the torn, gasping sobs subsiding into a low keening. At last, in True Speech, he said, "I must make confession. Can you hear it for me, Father?"

Hauskyld barely hesitated; there was surely some dispensation to cover this, and he could not let such a valuable research opportunity get away. "I shall hear the confession of my friend. And rest assured, no one is beyond the mercy or the love of God."

Thkhri'jha drew several long, shaking breaths and whispered, "I am sorry if my behavior is unseemly."

"'A friend may annoy, but cannot offend,'" Hauskyld said, quoting

the Randallian proverb. "Wait for me in the outer room of the cave." Thkhri'jha turned and went.

"Clio," he said. "Before I hear his, you should hear my confession."

"Your confession? What did you do?"

"Forgot to thank you."

She kissed his cheek. "Maybe I'll forgive that and maybe I won't. I'll need to think of a pentagon."

"Penance. Close, though." He kissed her lightly on the forehead. "You may as well get dressed—this will take a while."

"Sure."

She still seemed a little sad. He took her hands and asked, "Did you know there are married members of my order?"

"Really?"

"Yep. Better to marry than to burn and so forth. Of course, most of them are stay-at-homes—can't have germ plasm going through Runeberg Gates too often. The last time I saw the abbot—which was a long time ago—he'd just invested a large part of our assets in a huge casino/whorehouse complex. Proudly, let me add—it got us on a firm financial footing. And we're nothing next to those crazy Templars." He smiled and kissed her lightly. "So neither of us is in trouble, or not big trouble, when we get back. Is that what was worrying you?"

"Yeah," she said. She stretched, wiping her face on the sleeve of her tunic. "I like you a lot. I was afraid I'd made a mess of things."

"Never," he said. "Now get dressed while I hear confession." He hastily pulled his clothes on and went out into the outer room, where Thkhri'jha sat huddled in a corner.

"Are you prepared?" Hauskyld asked, in Randallian.

"I am," Thkhri'jha said, softly. "With no booth, how is this done?"

"Sit by my side and hold my hand."

Thkhri'jha did. "Bless me, Fh'ather, for I have sinned." There was a long pause; then Thkhri'jha spoke in Randallian. "I find the story easier to tell if I do not have to confine myself to the sins alone. Is that acceptable, Father?"

"Certainly," Hauskyld said. "What matters is that you confess, not that you order or rank or weigh the sins."

"We have been, in our time, high in the councils at Phmi'phtar and advisors to the High Kings—yes, to Vwat, Kri'shpha, and Dintander-oderam themselves. When the strangers from the sky first descended, a mission was entrusted to us: to learn of this idea of theirs of a great power in the sky."

There was another long pause. "We went to a mission station. There I met and spoke with a number of the fathers. Meanwhile, Mruk listened to them whenever I was not around, and Nygrekdoonjanku was able to



touch them in their sleep and to learn a little of their thoughts. At first we were greatly puzzled; your ponies, stupid as they were, seemed to have a great deal of t'muvam" (Hauskyld made a mental note to ask about this) "but the Terrans seemed to have little. Eventually we were driven to the conclusion that you were as you seemed to be—without brothers.

"This caused us great confusion. How could you live in that way? Mruk watched how you dealt with what you called 'animals'—this was another strange idea, for as far as we could tell an 'animal,' for you, is a being that you pretend is not a being, so that when you force it to serve you, or when you eat its flesh, you believe that you have no link to it beyond that simple use—as if it had never existed. This was puzzle enough, but there was more . . .

"Nygrekdoonjanku listened to your dreams, and he saw there the desire for *chthim'hra*, and yet, though there was shame for it, the shame seemed to be because of the commands of someone else, not because of the misery that must be endured. It was as if *chthim'hra* were actually a pleasure to you. Was it possible, then, that despite your resemblance to handpeople, you were more like wingpeople?"

The hairy hand tightened on Hauskyld's, becoming painful, and Thkhri'jha was silent. Hauskyld did not want to squirm, to reject the contact, and yet he wondered if all of this was a ruse to get hold of his hand and squeeze it to bloody sausage. . . .

There was a long whistling noise, the equivalent of a sigh, from the other side, and the hand relaxed. "What I learned, of course, was that you simply did not need brothers—you had God.

"And there were further wonders! As anyone could see from the story of Cana, your Jesus had used his great power to remove the agony of *chthim'hra*. And most wonderful of all—this was promised to all of us who joined him. Forgive me, Father, for I doubted, and, like the foolish Thomas, had to be shown."

Hauskyld could restrain the question no longer. "My son, what exactly is it that you mean by *chthim'hra*?"

"You see? You are not even aware of the possibility of such pain anymore. It is that which you were doing with Clio, with such abandon that anyone might have thought it was a pleasure. And there was no pain, no hatred—and thus you need no brothers.

"Forgive me again, Father, for ever doubting—yet now that I have seen with my own eyes, there will be no more doubt."

There was a long pause. "Was that what you had to confess?" Hauskyld asked. "Your doubt?"

The hand tightened again on his, painfully, convulsively. "No, Father," Thkhri'jha said, his voice a strained grinding. "There is more.

"There were other ideas about it. Nygrekdoonjanku believed that this was simply a matter of chance; that what you believed and your way of reproducing merely happened to coincide. And Mruk—"

This time his whistle was deeper and stuttered. "Mruk believed that you had killed your brothers.

"The two of them begged me to return to Phmi'phtar with them, to carry a report to the High Kings so that he might decide the truth or find advisors to determine it.

"But I had grown entranced with the forgiveness promised by your Jesus. We have a saying, 'Two whims must direct one will.' I learned how true it is.

"I would not agree to return with them to Phmi'phtar. I was stubborn. I wanted to stay longer and hear more; I quarreled in ways that must never happen. Others of our delegation began to notice.

"At last the shame was too much for Mruk. He tore out his chest and died. And Nygrekdoonjanku, who was with him, bit himself and died.

"But I had learned that my one hope of forgiveness was your Jesus, and he would not let me follow my brothers into death. And so I came to this place, and despaired of God—and you have come to show me that that, too, was a crime. I am guilty of my brothers' deaths, and of my disbelief; I have lost their forgiveness and that of God as well, and yet I cannot see what I might have done differently."

There was a last, deep whistle.

"Forgive me, Father."

Hauskyld wished the now-dead missionaries an extra century in purgatory. There was plenty of precedent for permitting suicide in circumstances where it was the universal custom of a species, and they had somehow ignored that. They had further—as, damn them, they always did—begun conversions before even the preliminary xenic surveys were done, letting new ideas roll like loose rubble on the slopes of the culture—and starting an avalanche that was still running. He looked down and saw his own hand, in the Randall's, had tightened into a claw.

With an effort, he relaxed it. It was only then that Hauskyld realized he had another problem: he had to come up with an appropriate penance.

The next morning, Hauskyld woke up to Clio's voice. "Hey, Hauskyld, you want to meet a friend of mine?"

"Let me get dressed," he said, still half-asleep.

"Kuf won't mind, and I had brothers," Clio said, as she entered. A griffin padded in behind her. "Kuf, this is Hauskyld; Hauskyld, this is Kuf."

"God's blessing on you, Brother Hauskyld." The griffin nodded politely.

"God's blessing on you," he returned automatically. The griffin seemed to smile, though the faceted eyes were expressionless.

"Make yourself comfortable," Clio said, sitting down. The griffin sat like a dog, folding its wings along its back. "I'm sure Hauskyld would be interested in hearing whatever you might have to say."

"I'm not sure what you want to know," Kuf said. Like the griffin in the recording, he had a hissing lisp.

"I think I've picked up the meanings of half a dozen words that you were puzzled about," Clio said. "Griffins turn out to be a lot less sensitive about taboo subjects than Randallans are."

"Not all griffins," Kuf explained. "I think it's just me and the other Christian griffins."

"*Christian* griffins?" Hauskyld stood up and began putting on his trousers. "I think you're going to have to back up and explain things slowly."

"Well," Clio said, "I couldn't wake you earlier this morning. I decided I'd go out and try to stir something up. Since one of the Randallans here spoke Terran Standard, and since you'd discovered, back at the fort, that at least one of the griffins did, I just thought I'd see if any of the ones here did. So I walked up to the first griffin that came to hand and asked him if he did." She shrugged. "He said yes, so we've been out there talking all this while."

Hauskyld laughed, shaking his head with admiration. "What a xenist! It's a shame you went into transtellar ecology; you're born for ethno." He bowed to Kuf and asked in Randallan, "How is it that you speak Standard so fluently?"

Kuf paused a moment. "It was to be our special field of effort when my brothers and I took the High King's commission," he said. "We were chosen because we were scholars of the ancient languages. And I think I may say that I have somewhat more than the common gift for language, though of course the high arch of my palate makes certain sounds very difficult. In any case, I also had a rare advantage—Terrans did not hesitate to speak around me."

Hauskyld nodded. No doubt this explained the unusual cleverness and subtlety that the negotiators had observed. "We are scholars in the same field, and I think we may help each other a great deal. If I may mention, there is a word I have yet to understand, and if it would not offend you to explain it to me—"

"What is the word?" The griffin wiped his face with his front paw.

Hauskyld noticed that the dissectors had been right in their conclusions—the larger fingers on each side could both oppose the three middle ones. Painfully aware that the griffin's beak could tear away chunks of flesh as big as his fist, and that Thkhri'jha had flown into rages when

the wrong questions were asked, Hauskyld wet his lips and said softly, "T'muvam."

The griffin reared back, sweeping its head with the circular motion that most Randallian animals used to take a close look at some unknown object. "You do not know the meaning of that word?"

Hauskyld shook his head. "No."

Silently, Kuf got up and left. With an expressionless glance at Hauskyld, Clio followed the griffin.

Three hours later, she came back. "I think I got the rest of the story out of Kuf," she said. "What did you end up doing with Thkhri'jha, anyway? What kind of penance?"

"I'm having him do silent Hail Mary's and Our Father's—a lot of both, just to be on the safe side. He's got a martyr complex a parsec wide, so I'm sure it will make him feel better, but between us, there's nothing in the Bible or in any Vatican pronouncement that even remotely covers this. So what did you find out?"

"Well, even Kuf found it hard to make himself say it, but here's the way things work: sex among the Randallians is pain-driven. The male gets a horrible pain in the crotch that won't go away until he ejaculates—which he can only do into a vagina, probably something in the secretions. The female goes into kind of a breeding frenzy—like Terran cats, but a hundred times worse. That happens every other midmoon, which is every other full Isolde, or twenty-five days Randallian. When the frenzy hits, the male just jumps on the nearest female and pushes in."

"Good God." Hauskyld set his water bottle down and stared at her.

"There's more. The experience itself is pretty brutal—there's a sac that forms inside the female's uterus, and the male has to rip a hole in that with the bony tip of the penis. The height of affection is considered to be restraining yourself and putting up with the pain."

Hauskyld shook his head. "I'm just as glad the Vatican can't get us a decree on this for at least 104 years. Something tells me the Pope will have to think a little."

"Ha. That's just the start. Griffins lay eggs, which they carry around in their pouches till it's time to hatch into—griffinets? griflings? little griffins, anyway—and then put them in a nest to hatch together."

"That doesn't sound so bad."

"Only *the biggest one* lives. After it eats all the others. And they *remember*—Kuf recalls eating two brothers and four sisters."

Hauskyld felt a little ill. "I can't imagine how we can fit that in with—"

"Hang on. The handsnake only mates once per lifetime—one great big litter, eight to twelve little snakes. Spermatogenesis initiates a biochemical process that kills the male within a midmonth of mating, and as for

the female—there's no birth canal. When the young are born, they just tear the mother apart. And remember, they're all contact telepaths—they all share the experience.

"Anyway, the result is that everything intelligent on Randall feels deeply ashamed of being here. Somehow their great religious teacher, a Randallian named Hmi'dro—"

"Ha! That's who that is. He turns up in a lot of their poetry and philosophy."

"He should. He's Mohammed, Alexander the Great, Confucius, and Karl Marx all rolled into one for these people. He resolved the tensions by this tripling system—how, I don't quite understand. Part of it seems to be that each of the species sees its two partners as completely innocent, and they all forgive each other. But there's something more under that, something I can't quite put my finger on. . . . Well, what do you make of it?"

"Well. Um. I think, anyway, that I can make a solid case to have Randall classified so that the Templars can't get it. We should be able to get it classed Pagan, if I can build up Hmi'dro in the right way to the theologians. Of course, if it's Pagan, there will be more missionaries."

"Uh-oh." She shook her head. "That'll be bad news. Wouldn't they eventually get classified as Infidel if they kept killing off missionaries?"

"Sure. You think they will?"

"Well, the odds of any triple all becoming Christian at once are pretty small—and unless they do, you're going to break up that bond. Look at it this way—all three species have, oh, call it birth-guilt. Randallian sex is rape, griffins kill and eat their siblings, handsnakes kill their mothers. Right? Now, that birth-guilt is intrinsic, like the Oedipus complex in Terran males. So they have to have a way to deal with it—suppress it, sublimate it, wallow in it, but they can't just forget it, and that's a big part of what binds them together."

"Ouch," Hauskyld agreed. "Sure. And in Christian doctrine, they're all forgiven. Big blow to the bonding. . . . Christianity probably doesn't have much effect if the members of the triple like each other anyway, but if the triple happens to be incompatible personalities—if their bondmates make them unhappy . . ."

She nodded. "I'm afraid so."

He sighed. "This is why the Church has never learned to like divorce."

"Would that be possible? Could you treat the bonding as marriage?"

"Maybe. I'd have to learn more." He shook his head. "Anyway, you're certainly getting a baptism by fire here—"

"Sorry to burst in, but you might want to get out into the courtyard as soon as possible." Kuf stood in the doorway. "Something's up."

They ran out into the courtyard. In the misty pink twilight, they saw

that nearly the whole population of the prison was there, surrounding the one large pillar of rock in the center of the compound. On top of it, easily recognizable by the parallel white scars that wrapped around from his back onto his chest, was Thkhri'jha.

Below, in the courtyard, Randallans, griffins, and handsnakes packed in steadily closer to the pillar.

The gate rumbled up to reveal a troop of soldiers, Randallans standing by their griffins, handsnake heads protruding to listen. The officers moved to just inside the gate, heads tilted toward Thkhri'jha. One griffin officer touched another's protruding handsnake; after a moment, they conferred with the rest of their triples, the heads leaning in together.

When they straightened up, the two griffins and two Randallans sang out orders. The soldiers unslung their flails—big, two-meter-long clubs with an elastic joint two thirds of the way up. Two of the Randallans moved along the wall, away from the gate on each side; their griffins went with them, crouching between them and the crowd of prisoners. The Randallans leveled crossbows at Thkhri'jha. The soldiers relaxed, not moving, at rest yet frozen into perfect readiness.

The twilight mist was darkening, the sky going from pink to a deeper red, colors on the ground fading to blacks and grays. Here and there, a griffin pawed a little, restlessly, not disturbing the dust or making a sound, or a handsnake noiselessly coiled and uncoiled—but then even that ceased. They stood in the middle of a stopped instant; Hauskyld thought of looking over at Clio or Kuf, but his head didn't turn.

Thkhri'jha straightened up, dropping all four arms to his sides, baring his chest to the crossbows. His breath was already drawn deep, his belly sucked in; slowly, his muscles relaxed, the twin collar bones fell to a calm rest. His mouth formed the circle that passed, on Randall, for a smile.

At last he spoke. "Listen to me, all of you. This is true.

"I am one as you are. I have known the bitterness between my parents after the ch'thimhra that began me, and through my brothers I have known the shame of murdering those hatched with me, and the horror of the mother-death. I have known the atrocity of ch'thimhra myself. I have—and this is my great shame—survived the death of my brothers and lived xhu'gha ever since. And I have known the Unseen Brother of the sky-strangers, the one they call Jesus.

"I say I have known Him, for I have met Him through His *p'hriest*."

There was no word in True Speech for priest; Thkhri'jha had borrowed the word from Standard. Somehow that broke the spell for Hauskyld, and he was able to look around again. At the same time, prisoners, officers, and troopers, even the sharpshooters who were supposed to have their crossbows trained on Thkhri'jha, turned and stared at Hauskyld.

He felt naked, or as if he had shouted an obscenity that he himself could not now remember, before he realized that Thkhri'jha had pointed him out. Gripping Clio's elbow, he backed slowly into the mouth of their cave, every backward step an embarrassment. After a moment, the crowd's gaze returned to Thkhri'jha.

Thkhri'jha continued. "He brought me to the sacrament that is called confession, where I spoke the evil that lay in my soul to this sky-stranger, and on behalf of God, he forgave me my sins. And I found that my soul was lightened; it was as if it rose far into the sky, and I could see what I never saw before.

"You all know that even before the coming of the sky-strangers, we had begun to strain the bonds of t'muvam. There were more of the xhu'gha every year. There were triples who lived apart from each other. There were children who went untriple for as long as a year. And murder among ourselves had swept everywhere."

"Remind me—some thoughts about that," Clio whispered in his ear. Hauskyld nodded.

The crowd was beginning to murmur assent; even the soldiers seemed to be agreeing.

"I tell you now—this Jesus cures these things. He makes all things new, does He not? Those who follow Him are reborn, are they not?

"Then, we, too, can be reborn. Baptized and forgiven, we can again form the triple bond of t'muvam, choosing our brothers freely and then, with the strength of Jesus, be again bonded for life. I call now—find the special ones for you, and *come here now!*

"Come here! And be blessed.

"Come here! And live again in t'muvam!

"You have been xhu'gha, which is truly said to be as death—I say to you, *live again!*"

The crowd boiled as everyone circled around frantically. Kuf bolted from their side and ran into the crowd; Hauskyld and Clio looked at each other, then back into the crowd, trying to understand.

Then the crowd began to coalesce, forming up into wavery, irregular lines. Hauskyld looked up at Thkhri'jha again; the Randallan was jumping up and down, waving his arms, shouting something Hauskyld couldn't quite hear.

"Marx's beard, Hauskyld, they're doing it," Clio breathed. "I wouldn't have believed it, but they are."

"What are they—my God. Oh my God."

They were lining up in triples, handsnake with griffin with Randallan. "Look—there's Kuf," Clio pointed out. Everywhere, triples were forming, Randallans, griffins, and handsnakes literally grabbing each other in near hysteria.

"They can't all triple up," Clio said. "The place is more than half Randallans."

Hauskyld nodded. "I can't believe—"

Thkhri'jha raised his upper arms and extended his lower ones, in the call for silence. "Bless you all. As God is Triune, so are his followers, united in Christ. Be as one forever!"

The troops stirred uneasily, mounting and raising flails to ready. The griffins pawed at the ground eagerly; the handsnakes dropped back into the pouches—they wouldn't be much use in a riot, Hauskyld realized abstractedly. The officers looked to each other, once, then again. The two sharpshooters stood by their griffins, crossbows still trained on Thkhri'jha, muscles relaxed, just watching without moving.

By now, Thkhri'jha's chant had been taken up by the entire crowd. It swelled to a roar—the griffin soldiers pawed, and the flails shook in the hands of the Randallans.

Again, he raised his arms, and there was perfect silence. He looked around, and took a deep breath. Then, very softly, he began the version of the Lord's Prayer that had been composed by the missionaries:

"High King of our souls beyond the sky, we honor—"

A crossbow bolt shattered the surface of Thkhri'jha's left eye and plunged into his brain. He fell like a limp doll to the base of the pillar, and lay there, head underneath, arms and legs sprawled around him.

There was one more frozen moment. Hauskyld turned to look at the troops; one sharpshooter was slowly lowering his crossbow, his mouth forming a circle of pure joy. One of the officers raised his right upper arm to give the signal for the charge—

With no warning, the second sharpshooter shot the officer through the back of his head.

The carefully formed troops burst into chaos. Half of them rushed to the dead officer; the rest turned on the sharpshooter, who had only a moment to scream something no one heard before he went down under the pounding flails. His griffin backed away, shaking its head, and tore its chest, collapsing to die, with a brief twitch as its handsnake bit itself.

Then a griffin officer was bellowing orders. The troops hurried to form up again, leaving the dead to lie where they had fallen. With a great clatter of flails, the soldiers charged forward, scattering the crowd and driving them back toward the caves. One wing rode around to cut them off; as it swept toward Hauskyld and Clio, they fled inside, all the way to the back, huddling together and trying not to hear the shrieks and thuds from outside.

They lay in each other's arms all night. The next morning, no food had been left for them.

\* \* \*



"Are you sure this is going to work?" Clio asked.

"No." Hauskyld shrugged. "But it's the best idea I've got, and I haven't withheld any information from them. If they decide to go through with it, at least it'll be an informed risk." All night he had gone from cave to cave, meeting with the battered and bruised Christians in their new triples.

They had all been eagerly arguing the exact meaning of Thkhri'jha's words. Hauskyld had tried to guide them along the lines of traditional theology, but it was hopeless—at least a dozen heresies, a couple of them entirely original as far as he could tell, had cropped up among them. He had pretty much resigned himself to that—getting a form of Christianity reasonably adapted to the culture, history, and biology of Randall was a job for the specialists from the Archbishopric, who preferred to work with a population whose conversion was well underway. It was better to know which practices worked for the local population and why before trying to standardize; meanwhile, the important thing was to have as many locals as possible believe themselves to be Christians.

Thkhri'jha's notion of combining Christian doctrine with the primal bond of the triples was the sort of stroke of genius the Church ultimately relied on. Already, some of them were extending it into parallels with the Trinity. And as a genuine martyr, Thkhri'jha was already *de facto* beatified; if Hauskyld kept his eyes open for appropriate events, there might be a good case for sainthood within a short time . . . a native saint wouldn't hurt the Church's prospects here, either.

The line was forming quickly at the gates. He had borrowed this tactic from Saint Dorothy of Brooklyn; he only hoped that it would work here, in a culture with at best an embryonic idea of rule of law.

They were ready. The line was silent, all of them praying or meditating silently and without outward sign, as he had told them to do. The gate rumbled up, and four triples of officers stood there, facing the line, waiting for whatever might happen. The first triple—Kuf, plus his handsnake Thingachganderook and Randallan Rha'ngri—walked up to the gate edge, standing within reach of the line of officers. Rha'ngri spoke first. "We petition for our release. We are bound in t'muvam; we are not xhu'gha. As such, we are entitled to our liberty."

The chief officer of the guard, a griffin, nodded to his Randallan, who approached Rha'ngri. "Return to your cave."

"We petition for our release. We are bound in t'muvam—"

"Return to your cave."

Rha'ngri began again. "We petition—"

"You will return to your cave," the chief officer said, "or you will receive a beating."

"We petition—"

The Randallan raised two batons, one in each left arm.

"—for our release. We are bound—"

The batons snapped down, one then the other, three times in all, making a wet, slapping sound on the side of Rha'ngri's neck. Rha'ngri sank to his knees, but continued to repeat the formula that they had devised the night before. "—are not xhu'gha—"

Deliberately, raising the batons high and then putting his shoulder and back into them, the Randallan officer struck a double blow with all his might. Rha'ngri fell face first on the redrock; his arms crept forward as if he were going to raise himself, but he went limp and collapsed.

Kuf began. "We petition for our—"

In a fury, the Randallan officer spun and beat hard at Kuf's head, hitting him over and over. Kuf's eyeridges went white with rage, but he did not raise his beak. He tried to keep reciting the message under the hail of blows, but the Randallan grabbed his beak and held it closed with one hand as he swung the batons again and again, beating a sick tattoo on Kuf's skull. Without another sound, Kuf sank to the ground. The Randallan officer stood over him, panting with exertion, fur all standing straight up.

Emerging from Kuf's pouch, Thingachganderook stretched across the inert bodies. Unable to speak audibly, and easily killed by a beating, the handsnakes could not participate directly. Instead, they went to the line with the other members of their triples, sharing in the fear and pain.

The griffin officer scanned the long line. "You will all return to your caves now. These will be taken care of."

The second triple advanced to the prostrate bodies of Kuf and Rha'ngri. This time the griffin began. "We petition for our—"

The Randallan officer leaped forward and beat him on the head until he fell forward, lying across Rha'ngri's feet.

"We insist on our rights as prisoners. It is our right to have our petition heard through to the end, by the declaration of the High King himself," the waiting Randallan said.

The griffin officer's eyeridges went stark white, but he said, "You are right, of course." He turned to the Randallan member of his own triple and said, "You will refrain from the use of force until we have heard the entire petition." The handsnake suddenly emerged from his pouch and slithered around to the other officers, touching all of them before returning to the pouch. Two of the triples turned and rushed off; the other triple stayed with their commander.

The commander looked around once, clacking his beak in anger, then turned back to the Randallan in front of him. "And what is your petition?"

"We petition for our release. We are bound in t'muvam; we are not xhu'gha. As such, we are entitled to our liberty."

The commander sat down, brushing his face with his hand for all the world like a big winged cat cleaning his face. The two Randallan officers stepped forward and beat the petitioner senseless in a burst of horrible drumming. There was a soft thud as their victim hit the redrock and a little sigh as the air whistled out of his lungs.

The two Randallan officers dragged him to the side, then returned and dragged Rha'ngri over beside him. The two unconscious griffins took longer, but they eventually got them moved over to lie next to the other petitioners.

The next triple stepped up to recite the petition; the griffin and Randallan were given the commander's bored attention, then beaten unconscious and dragged to the side. And the next triple stepped up.

There were sixty triples in the line. At the eighth triple, a party of soldiers showed up, forming a line behind the commander. Two triples of soldiers came up to flank the griffin; he nodded to the next triple in the line of petitioners.

Again they came forward; again they recited the petition. The two triples of soldiers administered the beating and dragged them away, this time hauling them off to their caves. Two more triples of soldiers stepped up; the commander nodded again.

"They seem to have the system down," Clio said. "How long does this have to go on?"

"Till we lose nerve, or they give us a hearing on the petition—or we run out of bodies."

"We'll run out before they do," she said. "Look—their first triples are already coming back through the line."

"There's always the possibility of a mutiny. This isn't exactly usual soldierly duty—some of them are bound to object sooner or later."

"How soon?"

He shrugged.

"Did you know how bad the odds were when you talked them into doing this?"

Hauskyld glared at her. "I didn't 'talk them into' anything."

"Would they be doing this without you?"

"Do you have any better ideas? I'm just trying to save them from the Templars."

"Oh. I forgot." She turned and went back to their cave. He thought of running after her, but the petitioners in line should not see him appearing to desert them. He stayed.

Petition blended into petition, and beating into beating. Once, a triple of soldiers balked, and was allowed to leave; three times, triples panicked and fled rather than face the clubs. There were only four petitioning triples left when the messenger triple—griffin panting from the fast

flight, Randallan clinging desperately to its neck as they flapped frantically to the ground in a steep dive, rolling off into a somersault at the last second—thumped down to join the commander. The handsnake slithered out, touching all three members of the commander's triple; they stood still for a moment. Then the commander nodded a dismissal to the messengers, who walked back through the gates and out of sight.

He gave an order, too low for Hauskyld to hear, and the soldiers flanking him fell back into the line behind him. The next petitioners advanced.

"We petition for our release. We are bound in t'muvam; we are not xhu'gha. As such, we are entitled to our liberty."

"Your petition is to be considered by the High King six days from now. You will choose a delegation to present it to him, of no more than three of these so-called triples. In addition, you will detail two of the xhu'gha griffins to carry the Terran prisoners with you. We require parole of all prisoners. Ten triples of soldiers and ourselves will escort your representatives. We will depart tomorrow morning. These are the orders of the High King; understand and comply."

"I am honored to receive His Serenity's orders and shall comply regardless of cost to me," the Randallan and the griffin responded together. With an expression that Hauskyld took a moment to recognize as disgust, the commander turned away, the soldiers following in poor order as if slinking away from a crime. The gate came down with a crash.

Hauskyld looked up at the sky and realized that he had been standing here for almost three hours. He went inside.

Clio sat on the edge of the tub, staring at the wall.

"We've got it," he said. "We meet with the High King in six days."

"Oh. So it worked."

"I guess." He sat down. "I'm sorry that you're angry."

"What if we had just asked and waited?" she asked. "Why did we have to do this?"

"Time's short, and we need all of it to talk. And we can't be sure they wouldn't have ignored the petition."

She nodded, slowly. "How many beatings were there?"

"More than a hundred, counting each triple as two." He sighed. "I'm sorry. It seemed the best way to me."

"It might have been," she said. "I'm sorry too. You'd think that a good Communist would know that the end justifies the means, but I just can't see it that way. What's going to happen to these people?"

"That's not a question for a xenist."

She agreed, but she didn't speak again till morning.

The Spens Desert, on most other worlds, would not have been desert at all, but Randall had no grasses. That fascinated Clio, and the first

three stops she talked of nothing but how odd it was to see scrub and cactus country with obvious flowing rivers and pools of standing water. Hauskyld's own interest was much more narrowly focused: he was air-sick.

Griffin flight was nothing like being in an airplane. The dense, high-viscosity air of Randall, and the lower surface gravity, made flight possible at much lower expenditures of energy per unit mass, but griffins still ate three or four times what a Terran horse did daily, and carrying passengers they could only remain aloft for an hour and a half even when thermals were favorable. Thus, a griffin ride involved a great number of swooping stops for food, and a lot of flapping in between, and by the third swoop, Hauskyld was reduced to simply hanging onto his griffin until the last moment, then letting himself fall off. He hoped he had made a favorable impression by not throwing up until he reached the ground, but he doubted it. Minutes later, bruised and shaken, he would have to summon his strength to run alongside Thwov and mount at the moment of takeoff; twice he had jumped too late, ending up in a heap on the ground and forcing Thwov to circle back and try again.

Clio, on the other hand, was disgustingly cheerful and appeared to be enjoying every moment of it.

Thwov, the griffin he was riding, tried to distract him with conversation. At first that made it worse, since the griffin could speak only on the exhale that accompanied a downstroke, or while gliding, and the rhythm of his speech kept bringing Hauskyld's attention back to the rhythm of the flight. Eventually, though, he became interested enough to forget his stomach. Thwov was from a fishing clan from the east coast of Doolan near the equator, an area Hauskyld had not gotten to visit before the war broke out, and was more than willing to talk about his home, until his appetite interrupted again. "Hang on—I see some ripe fruit below, and I'm going to dive down for some. If you'll signal the guards . . ."

Hauskyld made a fist with his left hand, raised it overhead and circled it, then slashed an open hand down at the tiny patch of green below. Immediately one of the guard triples detached and they glided down to it together.

The little oasis wasn't much more than a spring-fed puddle with a fruit tree. Hauskyld and the Randallian guard climbed the tree to throw down fruit, picking as quickly as they could while the griffins gobbled eagerly below them. "You might want to grab one for yourself," Xith'da said. "They're good."

"I might have some trouble hanging onto it."

He whistled his amusement. "So. Of course. You've never ridden before.

You have the Child's Sickness. In us, anyway, it passes after the second day or so."

"I'm glad to hear it."

The griffins had at last finished off the fruit; Hauskyld and the guard climbed down and mounted up. "Oof. Takeoff from level and a heavy gut," Thwov muttered.

Derfh, the guard griffin, snorted agreement; then all of them were racing along side by side, the griffins' wings tucked while they gained speed in their gallop, then abruptly open and beating hard a scant quarter meter behind the Terran and the Randallan. As Thwov sprang, Hauskyld leaped into the harness on his back, grabbing the leather handles near his thighs and sticking his feet into the stirrups along Thwov's long neck, bracing himself against the sharp stall. The two griffins swung upward into the sky, separating a little to give each other maneuvering room. Kith'da waved a signal; Derfh would lead.

Hauskyld waved an acknowledgement and settled into the position that was most comfortable for griffin and rider, sitting directly between the two big wings with his feet extended forward into the neck harness and his hands resting loosely on the grab straps.

He had seen badlands desert before, but Randall's was different—less carved and more rounded, as if the deserts of other worlds had partially melted like cake frosting in the rain. He was no longer sick or even uncomfortable; he regretted not having eaten the fruit.

Griffin flight at this altitude gave barely any sensation of movement; it was like pleasantly rising and falling in a stationary place in the sky. He looked around again, at the red desert speckled with green marshy spots and wound with long green lines of rivers. The distant mountains rolled low and crumbled on the horizon, their darker, bluer basalt seeming to rip upward out of the redrock. The next time they descended, he ate heartily.

After the first day, the journey fell into an easy rhythm—up early, a quick cold meal while the griffins gorged, then off into the sky for the long day's flight, broken only by Thwov's occasional swoops down for food. Now that he was over the Child Sickness, Hauskyld had come to love the trip. Thwov turned out to be an excellent guide, and as they wove back and forth, making their way up the passes through the Raven Range, Hauskyld began to get a better feeling for what Randallan history had been.

Like the story of most civilized species, it didn't bear much close examination. The triples had come into being in a flash of psychological insight, but they had survived and prospered because they were militarily superior to anything else at the time. A squadron of triples was

much more agile than even mounted Randallans; in the air, the Randallan bows and slings, and later guns, gave triples the advantages of range and firepower over griffins alone. Most of the handsnakes wisely embraced the new system early; griffins and Randallans who preferred the old ways were wiped out in a series of bloody wars, the last traditional kingdoms falling about two hundred Randallan years after Hmi'dro.

The great crusades of the triples had worked other changes as well. War had been a seasonal, ceremonial, professional matter before; Hmi'dro had simultaneously invented, in effect, the jihad and the nation in arms, and the deadly struggle had brought forth crossbows and nitroglycerin.

Below them, Thwov pointed out the Pass of Rusted Iron—the Randallan name for it, since only the major features had been given Terran names from the first orbital survey maps. "That was one of the last big battles. It's called that because they just left the enemy dead on the field with their weapons; for hundreds of years afterwards, from the heights, you could see the red patches where the last groups of them made their stands. Look—berries. Why don't you signal a guard?"

Hauskyld signaled. They plunged toward the berry patch on one of the mesas within the gorge. He leaned into the dive, exhilarated by the wind whipping across his face.

That night in camp, Captain G'tru announced, "We'll be at the High King's camp before noon tomorrow. At that time we'll be turning over the petitioners to other guards. I want to congratulate the prisoners on their admirable deportment, and to wish them luck in their petition."

"I'm sure he'd be just as cordial carrying out a death sentence," Clio whispered in Hauskyld's ear. That night, when everyone but the sentries had gone to sleep, she rolled over and touched him on the shoulder, bringing her face close to his neck. Silently, he hugged her. They copulated hard and fast, as if they were strangers angry at each other.

Phmi'phtar was not a true capital city—its name was simply a contraction, in Randallan, for "the place where the High Kings currently are." Even so, it was an impressive place. The High King's entourage included a "baggage train" of over two hundred triples, two squadrons of lancers, and a squadron each of musketeers, pikemen/grenadiers, and crossbowmen, plus a "life peerage" that added up to about eighty more triples. Normally Phmi'phtar must have been the largest population concentration on the planet; now it was dwarfed by the great camps ringing the Terran fort.

The High Kings by tradition held council only after dark, because nominally they had to forage for their own food like everyone else—in fact, "High Kings" might not have been as good a translation as "Most Important of the Socially Prominent Triples." Despite the carefully main-

tained egalitarian pretense, however, practically everyone in Phmi'phtar passed along daily "gifts" of food and goods from friends and relatives in their home bands to the High Kings. Since, in normal times, the High Kings weren't much more than a combined Supreme Court and Chief of Police, empowered to make up the law as they went, the regular gift-giving sufficed as the tax structure. "The rates are low, and compliance must be problematic, but they've got a whole planet to draw from and there's a status bonus for paying more, so I'd imagine the deficit's under control," Hauskyld commented to Clio as they walked with the party of Christian petitioners.

"They probably see it as having a lot of good friends."

"Yeah. Did I mention that Captain G'tru accidentally tipped me off to why they could never get more than about a hundred triples into battle right away—just five squadrons?" He took her hand. He knew he was rambling on, but his nerves were fraying and he couldn't quite stop. "For a squadron to be allowed the honor of being on duty, it has to send appropriate gifts from every member—and the cargo convoy can only haul about five squadrons' worth of gifts per day. And the honor includes their fair chance to prove that they can handle the fighting all by themselves. So even though their commanders know objectively that five squadrons isn't enough, they have to let things get desperate before they can justify insulting the vanguard by reinforcing it. Even then they get a lot of complaints—the triples who paid to be in combat resent the freeloaders."

She nodded. "A lot's coming clear, now that we have a key to it. Kuf tells me that they weren't actually crucifying prisoners, either, as they saw it. They were leaving them out to be reclaimed. Then, if we wanted the people who had disgraced themselves by surrendering, we could come out and get them, and if we didn't, nobody had to be bothered with them again."

Hauskyld felt a twisted disgust in his mouth. "So what Sherman did—attacking under cover of retrieving prisoners—that was the equivalent of putting an artillery control center inside a hospital . . . I told him not to. And then his boyfriend got killed that way . . . why don't the historians ever do studies of stupidity?"

"Too much material to cover adequately," she guessed.

They came to the first bend in the path. The Pavilion of the High Kings—an enormous tent decorated with the banners of countless war bands, going back centuries—could never be approached directly; though they stood less than three hundred meters from the pavilion, the zigzag parade route up to it was just over a kilometer long.

Everyone had to make an obeisance at the first bend. Hauskyld and Clio had already worked out that they would kneel and bow all the way



to the ground, arms behind the back, as the Randallans did; it seemed easier than stretching out prostrate, all limbs extended, like the griffins, and it would have been difficult to duplicate the position, like a rearing cobra but leaning backwards and looking straight up, that the hand-snakes used.

Silence seemed to be expected of them during the next straight stretch—at least the chatter died abruptly. Menkent, the great red sun of Randall, was all the way down now, and the mountain air, here in the low foothills leading down to the Stavingchain Ocean from the Raven Range, was chilly. Hauskyld wanted to hold Clio's hand, but he had no way to know whether it was permitted.

They made obeisance twice at the next turn. The column formed silently into single file for the final approach to the royal pavilion. By now the sun was gone, but the sky behind the Ravens still glowed deep red. The torches, placed about every twenty meters on this last approach, were more hindrance than help, blinding if Hauskyld looked up at them, preventing his eyes from staying adjusted to the last dim evening light. Isolde and Mark were rising in the east, but they were too low to give much light through the tall conifers yet. The red afterimages of the torches swam before his eyes, and he occasionally stumbled on the stray stones in the soft, loamy path.

After making three obeisances, they entered the pavilion. The tent walls were hung with bright tapestries, and the crowd within wore brilliantly colored dyed leather, the Randallans as sashes, the griffins in a chest-crossing harness, the handsnakes as a hood. They formed a semicircle around what Hauskyld realized must be the artifact whose name he had translated as the "Throne."

The arrangement sat on a wooden scaffolding. Kri'shpha, the Randallan, sat on a chairlike seat with a low back; the chair had an arm on its left side, but not on its right, where the griffin, Vwat, sat doglike on a slightly lower platform, his head level with the Randallan's. The back of the chair continued part way around the griffin, and on it lay Dintanderoderam, his body continuing up the griffin's side and onto his shoulder. The three heads, close together, looked down from a height of almost two meters above the crowd.

Hauskyld, Clio, and the Christian petitioners were prodded gently into the space directly in front of the Throne. Four pikemen flanked them. For what seemed a long time—actually perhaps twenty seconds—no one spoke. Then the party made three obeisances, rose again, and waited.

At last the Randallan and the griffin Kings spoke in unison, slowly, as if all three were conferring quickly on each word before speaking it. Probably they were.

"We have heard your petition.

"We have reached a decision.

"Hear it and abide by it, so that peace may be upon all concerned.

"We find that the ancient rules for the forming of the triples do not require formation at birth. We find, therefore, that when the xhu'gha submit themselves to this Jesus-belief, and after that live as a triple, that they are a valid triple indeed, and as such are free.

"We urgently ask the Jesus-followers among our friends to establish, for the knowledge of everyone, the way by which they do this thing, for we do not wish invalid or spurious combinations formed.

"The Jesus-following triples are free." The High Kings slumped. To make a speech that long while locked in telepathic link was surely exhausting, Hauskyld realized; the natural tendency to have a phrasing of one's own would lead to an at-least-subconscious battle over every word.

The guards sprang forward at once, Captain G'tru in the forefront. Within a few minutes the former prisoners had been led into the surrounding crowd and leather sashes had been put on them. At the word of the High Kings, the Christian triples had gone from abominations to regular, accepted members of the people, and there were clearly no hard feelings at all between former prisoners and former guards. Hauskyld and Clio were left alone, still surrounded by armed guards, standing in front of the High King.

"Furthermore," the High Kings said, "the teachers of the Jesus Way will be permitted to teach in the xhu'gha confinements. We hope they can form more triples there."

"If one may request the importance of receiving your attention," G'tru said formally.

"We listen."

"How am I, or those who serve under me, to know who is a valid teacher of the Jesus Way?"

There was a long pause. At last, very slowly, the voices forming not much more than a sibilant hiss, the High Kings spoke again. "You may choose among the triples who petitioned tonight, one triple that will judge all others. When you have chosen, notify me of their names so that I can proclaim their judgeship over that area. If the triple you select should later prove unsatisfactory, you may select another after notifying me."

"It shall be as you say." G'tru and his Randallan and handsnake all made obeisance.

Christianity had just been legalized two minutes ago, and already the High Kings had taken the path of Henry VIII. Hauskyld was glad it would take a long time for the report on this to reach the Archbishop.

"Is there no other business requiring our attention?" It was clear that

the question was ritual; the High Kings spoke the words quickly. "Then court shall be dismissed. The Terrans will remain afterwards. No guards will be required; the Terrans' parole is accepted."

Hauskyld knelt and made obeisance. Beside him, he could feel Clio doing the same.

"Dismiss!" one of the Randallan guards bellowed.

The exit took a long time, because everyone, handsnakes included, had to back out, still facing the throne, and make obeisances at the door, before proceeding single file back up the path. By turning his head just a little, Hauskyld could see that they were permitted to turn their backs and proceed up the trail normally after the first bend.

When the last triple had passed the first turn and remounted, Krish'pha and Vwat arose slowly, unsteadily stretching. "We understand that you both speak the True Speech," Vwat said.

"If it pleases you, we do."

Krish'pha whistled low. "There's no reason to be formal in this situation. If you noticed, we no longer speak-as-one."

"We understand," Clio put in. "You wished to speak to us?"

"Confer with you, perhaps." Vwat stretched again and lay down. "Excuse my informality, but anymore I find I'm terribly stiff after these audiences. The Royal Physician said that you're subject to the condition as well—swelling at the joints with age—"

"Arthritis?" Hauskyld asked.

"That was the word, I believe. My wings are mercifully free of it, but my hind legs—ahh. Never mind that, anyway," he said, glancing at Krish'pha, who was wrapping and unwrapping his lower arms impatiently. "There are many things to discuss."

"There are indeed," Krish'pha said. "I am told that you are craftspeople of a kind, working at the trade of understanding those who are not of your kind, of speaking for your kind to them. This is true?"

"Yes" Hauskyld said, and waited patiently.

At last Krish'pha spoke again. "Do you ever perform such services for anyone other than the—what is the title, your High King—the Pope?"

"We can often do that," Hauskyld said. "It is our belief that such a service to one party is a service to both if it is done honestly."

"There's truth in that," Vwat said. "Very well, then. What we need is peace—peace of a very particular variety. We believe you can help us secure it. We had thought that there was little hope, before the petition of the Jesus-followers was brought to our attention. Now matters are somewhat different than they were.

"You are a teacher to your people about my people. Do you understand why the xhu'gha are persecuted, imprisoned, encouraged to do the honorable thing and kill themselves?" Vwat asked.

Clio drew a deep breath. "Because, though the triples are superior on the field of battle, a xhu'gha has many advantages over the triple in time of peace. Everywhere we have explored, we have found that those with few bonds of loyalty find it easier to rise in society—there's nobody to make them feel ashamed of themselves, they don't have any friends to share with or feel bad about leaving behind, and they have more time to put into it because they have fewer distractions. So if you were to tolerate xhu'gha at all, after a few generations, they would be the rich ones, the ones with real power."

"Exactly," Krish'pha said.

Vwat spoke softly. "Since now we see that your Jesus-way can save as well as abolish triples, we hope it may in fact help us to reduce the number of xhu'gha among us. So we now see a need for peace with the Terrans, and it is with that that we ask your help."

"In what way can we serve?" Hauskyld asked.

"Carry our message," Krish'pha said. "Bargain for us if need be. We wish to offer peace to your people, on these terms:

"First, that both sides shall lay down arms completely; there will be no reprisals after the agreed day.

"Second, that this new kind of Jesus-following, created by the now-dead Thkhri'jha, shall be both permitted and, among the xhu'gha, encouraged."

After a moment Clio broke the silence. "Then that is the entire message?"

Vwat ruffled his wings in thought. "Are there other things that we ought to offer, in your opinion?"

"You might consider offering terms of alliance," Hauskyld said. "That would help you later, too, if you should wish to make a case for closing this world to . . ." There was no Randallian word. "Colonization."

"Kholini—?" Krish'pha asked.

"The settling of Terrans on this world, in great numbers, permanently . . ." Clio began. "It usually leads to Terran domination. Most peoples would rather avoid it. So Hauskyld is right—you might want to join the Commonwealth rather than be forced into it."

Krish'pha whistled. "This all grows more complicated."

"There will be many years to prepare," Hauskyld said. "It will be fifty of your years before the ship of settlers arrives. If by then you have joined the Commonwealth, it will be for you to say what they can do. They can go on their way, to another world, or settle here under whatever terms seem reasonable to you. The decision is yours as long as you have formally joined the Commonwealth. But in any case, some things will necessarily change."

"They always have," Krish'pha said. "That much sounds to us like

wisdom. Shall we add, then, that we would like to explore the possibility of joining your Commonwealth, and open talks on that matter?"

"That seems good to me."

"Then do that as well." Vwat stood up, stretching his hind legs painfully. "I regret to call a halt to this—we have much to learn from each other. But no doubt there will be time later on."

Hauskyld and Clio bowed deeply and backed out the door; as they backed up the first leg of the path, Hauskyld saw, from the corner of his eye, that Krish'pha, dropping all ceremony, was gently massaging the griffin's hindquarters.

Clio held the white flag up high; it snapped and popped in the autumn breeze. The fort, less than two hundred meters away, seemed almost deserted—posts that had been routinely manned looked empty. He wondered idly if the Randallans had taken to sniping, forcing the crews on the wall to be more careful about cover. Given the short range of projectiles it seemed unlikely.

It had taken them more than two hours to get here from the rock outcrop where they had waited before dawn. Every fifty meters they had stopped to wait three minutes by Hauskyld's watch and to make the standard Terran gestures requesting parley. So far, everything was all right—they hadn't been shot at. "Can you hear them, Kuf?" Hauskyld asked.

"Not quite. Wind's the wrong way. But I don't hear horses or anything else that says they're coming out."

"So now we wait?" Clio said.

"Yeah. At least it's autumn and there's been some rain. I'd hate to have been standing here all day in mid-summer." They stood there, looking at the fort, Clio occasionally shifting the flag from one hand to the other. He felt an absurd urge to point things out, to say, "that's my old guardpost—I bet that's Joshua and Gideon standing there" or "I helped patch that wall," anything to make conversation.

Kuf had long ago sat down in dog fashion; Rha'ngri was leaning back against him. Hauskyld took the flag from Clio. "The sun's past noon now," he said. "I guess Sherman's going to take his time."

"I wish I could sit."

"Lean on me if you want," Kuf offered.

"No, better for us to stand. We're diplomats, after all." She smiled at the griffin.

"Should I also be standing?" Rha'ngri asked.

Hauskyld shook his head. "They don't know what's appropriate to you, since you're an alien. So it doesn't matter at this point. Actually, though,

Clio, if you'd be more comfortable you could kneel. That way they'd think you were praying."

"Would I have to do the thing with my fingers?"

"The thing—oh, crossing yourself? No. Just kneel and bow your head."

She did. "Much better. Why didn't you do this while you had the chance?"

"I'd feel guilty about faking it."

The sun sank steadily behind them, their shadows running out toward the fort. "What if they don't respond?" Clio asked.

"We try again tomorrow."

"Looks like that won't be necessary," Kuf said. The gate was rising, and the drawbridge was rolling out on its tracks over the minefield.

"Positions, people," Hauskyld said. They lined up, Clio holding the flag in the center, Rha'ngri and Hauskyld flanking her, Kuf and Thingachganderook behind and to the sides. Kanegawa, the Templar captain, walked out to the end of the drawbridge.

Saluting, he walked briskly over to them. He looked haggard, his eyes sunken and his skin sallow as if he had not had much sleep in a long time.

"Brother Hauskyld," he said quietly. "Doctor Yeremenko. And—"

"Emissaries of the High Kings," Hauskyld pointed at each of them. "Rha'ngri, Kuf, and Thingachganderook. May I present Captain Kanegawa, of the Brothers Templar." As he had suggested, Rha'ngri bowed, Kuf nodded deeply, and Thingachganderook coiled his head under.

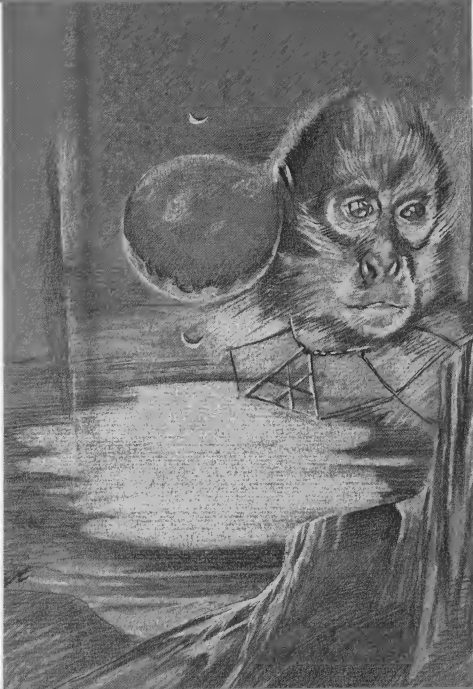
"You are welcome under flag of truce," the captain said, bowing deeply himself—a good reply, Hauskyld thought. "I am required to inquire of your purpose here and to ascertain the status of Brother of Saint Mbwe Hauskyld Gomez and of Comrade Doctor Clio Yeremenko."

More than anything else, the diplomatic niceties told Hauskyld he was back among Terrans. The real questions were simply, "Why are you here?" and "Are you prisoners?" —which made those exactly the questions that couldn't be asked directly.

"We have been engaged, under the terms of my Mbwe'ist oath and Doctor Yeremenko's current status as an alien resident of the Christian Commonwealth, as broker-agents for an armistice, intended to lead to a permanent peace."

Kanegawa repeated the entire message into a small hand-radio, then smiled at Hauskyld. "All of us here could probably settle this in ten minutes over a beer." The radio pinged; he raised it to his ear and listened. "Your status has been accepted under all relevant covenants; we have also accredited the ambassadors Rha'ngri, Kuf, and—Thingachganderook?"

Clio smiled. "Your pronunciation is perfect, Captain—perhaps you should handle the negotiations."



"I'm just glad we're over the nonsense. You're both getting your old rooms back—sorry about that, ma'am, but Father Sherman insists—and we've fixed up a large, warm comfortable space for the ambassadors near the cavalry quarters. If you'll give whatever signals you need to and then come along with me—"

Rha'ngri turned and raised his fist over his head, circling it three times, and then extended all four of his arms, hands out flat, in front of him. Far out in the evening sky, a dark, circling dot flashed brightly three times. "That will tell them we are not prisoners," he said in Standard.

Kanegawa gestured toward the drawbridge. "If you will follow me—"

"Also," Kuf said, "you need not try to conceal that you're putting us in the stables. We realize that on short notice nothing else is possible. We are not insulted."

When they were halfway across the bridge, Kanegawa asked, "How did you know it would be in the stables?"

"Where else can you put something my size? Most of your bigger rooms must already be in use." The captain nodded, twice, as if he had just understood something profound. Hauskyld liked that gesture—which surprised him more than anything so far today.

His old cell was just as he had left it. He hoped they would have a change of clothing and somewhere to bathe for Clio, but for right now he was mostly interested in those things for himself. He dropped his boots in the middle of the floor, stripped off his grimy trousers, tunic, and underwear, and got into the shower stall, turning the hot water up as high as it would go and scrubbing his itching skin ferociously. He massaged the hard soap into his hair, swirling the suds around and rinsing in the stream of hot water, lost in the pleasure of getting clean at last.

The dirty alweather, tunic, trousers, and undershift went into the laundry hamper, and he put on his pale blue formal robe. As he combed his hair, there was a knock at the door.

It was Kanegawa. "Come in," Hauskyld said. "Is it time already?"

Kanegawa quietly closed the door behind himself. "Not yet. I think there're some things I should tell you privately, and they aren't likely to think I'll be in here."

"They?"

"Sherman's boys. The younger Aquinian officers."

Hauskyld gestured toward the other chair, then took a seat himself. "It sounds like you'd better just tell me from the beginning."

Kanegawa shifted in his chair, looking at the wall for a moment, and



crossed and uncrossed his legs. "I think that Sherman must have had a minor stroke right after you left. It's classical paranoia."

"Why hasn't he been removed?"

"This is a base in a war zone, which means I'm the next ranking officer. Sherman's got a lot of younger ones tied to him—he's put the senior officers in the brig and promoted the rest. And he's completely paranoid about me—he seems to think the Templars are going to take over Randall."

"Well," Hauskyld said mildly, "are you?"

Kanegawa grinned at him. "Every order looks after its own, of course. Yes, I admit it would be a feather in my cap. But I'd get the feather regardless of what happened here." He paused. "Do you know how many domestications there've actually been?"

Hauskyld shrugged. "You're from a lot later in history than I am. There hadn't been any approved when I last left."

"There've been two since. The last Pope I knew about made it clear—only Infidel worlds with nuclear weapons and space travel can be considered for domestication. The purpose is supposed to be just to remove positive dangers from Christian space—that's all." He looked at Hauskyld for a long moment, obviously sensing doubt.

Hauskyld shrugged. "Suppose I accept that for the moment. Tell me about it."

Kanegawa shrugged. "I've pretty much told you. Most of my Templars are being held under arrest, though sometimes they let them out to fight. Same with a lot of senior Aquinian officers. It's almost entirely younger Aquinians in any position of responsibility—which includes Captain of the Watch, and that scares the hell out of me."

Hauskyld nodded. "I noticed there were some unmanned posts."

The Templar captain slapped the red concrete wall. "Yeah. And maintenance has been pretty shoddy. The place is falling apart—and there's still a war on." He looked up. "You're an Mbwe'ist—you're not really committed to anything except preserving this planet. Right?"

"Unh-hunh."

"Then I think you should know that I want to recommend a full withdrawal. Any idiot can see we can't possibly settle humans here until we understand what we're doing—which might be a long time. This place isn't strategically vital, so we might as well go to where the pickings are better. I thought you might like to know that I won't recommend domestication. And if I did they wouldn't accept it."

Hauskyld nodded. "I'm glad to hear that. But it shouldn't even be an issue—the Randallans are actually interested in becoming a member species. Or three member species, to be technical."

Kanegawa smiled. "From what I've seen, I'd rather have them on our side." He glanced at his watch. "It's getting close to time for the meeting."

Sherman seemed not to be sure of where he was; his aides had to steer him through the greeting ceremonies. Surely his condition was obvious even to Rha'ngri, Kuf, and Thingachganderook.

Now the old man slumped in his chair, apparently sleeping through Hauskyld's report. Kanegawa was the only one really listening; the young Aquinians' attention was all on Sherman. Only two of them were men of any seniority—and those were battlefield promotions within the past year. The rest were just out of their teens. Kanegawa was obviously telling the truth.

Clio gave her report, fully concurring with Hauskyld's recommendations. The Templar captain nodded vigorously every time Clio paused—Hauskyld wasn't sure whether that was for Clio's recommendations, or for Clio, but she seemed to be persuading him.

Sherman suddenly sat up, alert. "Repeat the material on, ah, reproduction again," he commanded.

Hauskyld gave the material again, explaining patiently. Sherman stayed alert, questioning Hauskyld about the exact mechanics so intensely that he felt embarrassed to be talking of such things in front of the Randallan delegation. Suddenly Sherman waved him silent.

"I have long suspected this. This entire planet is Satanic. Captain, your Templars are unleashed; domesticate this planet."

Kanegawa swallowed hard. "Father, I don't see any need for domestication here. The local population has submitted to the instruction of the church. And in any case my Templar troop is mounted infantry—we don't have nukes, weather modification equipment, or a pathogen-tailoring facility."

There was an edge in the old priest's voice. "That sounds very suspiciously like insubordination to me."

"I have a duty to tell you the truth," Kanegawa said. "Furthermore, I have a special duty to look after the Pope's military interests here—and he would be well served with the gain of a friendly, intelligent world in this part of the Empire. It is true that to us some of their reproductive processes are repugnant—but they're beyond conscious control, so doctrine can be developed to cover them. From what Brother Hauskyld tells us, it is already developing. Please, sir, listen to your own reason . . ."

Sherman beat the desk with his fists. "There is nothing at all wrong with my reason. The problem is treachery, and I know it. I know the Templars have turned many of my own officers against me. I know that the Archbishop has conspired behind my back to turn this world over to Satan by sending me Templars who are quite incapable of domesticating

this planet through their own sheer insubordination. And I know I was sent to a Satanic world by the same people. It all connects if you see who is behind it." He seemed about to cry. "First of all, lock up this fraudulent Templar. Second, tie up these obscene *critters* on posts on the wall. Expose them to their friends. Let them see how much they like it, when it's done to them!"

"They are here under our pledge of safety," Clio said.

Sherman breathed hard, his shoulders heaving. His grin showed more rictus than humor. "Your pledge. Yours and this Mbwe'ist's. You can join your critter friends on the posts."

"Sir," Kanegawa said, "this is crazy. I must protest that—"

Sherman grabbed a pistol from the holster of an aide who was trying to whisper in his ear. "Crazy? Now, that's insubordination . . ."

Kanegawa stared straight down the barrel. "Sir, someone has to tell you. You are no longer fit for command."

Sherman swung the pistol back and forth, covering the room, and smiled. "Is there anyone else who agrees with Captain Kanegawa?"

No one spoke.

"Then follow orders, gentlemen."

One of the aides came around the table with handcuffs. When they led Kanegawa out, he exchanged one glance with Hauskyld, but it didn't seem to mean anything.

False dawn shone through the penance compound window. Hauskyld had requested Kanegawa as his chaplain—they wouldn't allow Clio. Now the Mbweist and the Templar were both trying to think of something to say.

"Now, once more," he said. "If you leave on the Evacuation Gate, give them this list of record caches. I don't think the Randallans will find or bother most of them, and they contain important data."

Kanegawa nodded. "And if I get the chance, I surrender the fort and talk to the High Kings." He sighed. "There sure wasn't anything about this in the old handbook."

"I suppose not. There are lots of things that are outside the rule books but have to be done anyway." Hauskyld held up the two microphones he had found and pulled just before Kanegawa got there, and passed him a note. "My will. Read it."

The Templar did. He smiled halfway through, where Hauskyld had known he would. Then they sat in silence.

The troopers who came for him looked vaguely ashamed. Kanegawa clasped Hauskyld's arm and whispered, "I'll pray for you."

Only when they tied him to the post did he really believe this was happening.

The five posts held them up on the wall, arms over their heads for Rha'ngri, Clio, and Hauskyld, front feet lashed to a crosspiece for Kuf. Thingachganderook's fins were pulled to their widest extension and clamped to the post. Hauskyld had only a hazy idea of the handsnake's anatomy, but he thought that was probably horribly painful.

Menkent climbed up the sky. The world narrowed into the pain in his forearms and shoulders; he saw with perfect clarity, but nothing he saw made much difference.

One guard began touching Clio, but an officer saw him and made him leave. On his way past Hauskyld, the guard casually jabbed an elbow into his solar plexus, leaving Hauskyld gasping for breath, and went on his way. After a little while Hauskyld's breath came back and his stomach was only a little sore.

The sun crept toward noon. Out over the mesas, Hauskyld could see a number of triples circling on thermals—as he watched, there were more of them, as if they were taking a particular interest.

At first he thought it was pure hallucination brought on by pain and thirst, then that he was seeing double or more. But he squirmed, waking his arm muscles into fresh agony and driving a small sliver from the post into the skin on his back, and his mind and vision cleared for a moment. Hundreds of triples had popped up from behind the cliffs by the landing field, wings beating frantically from the level-ground takeoff, and the triples circling the fort had plunged into steep dives toward the ballistae. The sirens sounded. But the crews were already too late to the ballistae. Even though the first wave was barely a reinforced squadron, and the griffins, tired from circling for half an hour or more, could do little more than dive straight in, only four bolts rose to meet them.

The triples swept in, landing on the wall itself, among the scrambling troops. Twenty Randallans, each carrying a brace of pistols and a battle axe, swarmed from their griffins and headed for the ballistae. The griffins, wings beating fiercely, beaks slashing, rushed down the wall, knocking men into the courtyard below; handsnakes twined everywhere, biting an ankle here, a hand there.

The human troops fought back as best they could with whatever was at hand. One leaped to a scattergun on the parapet, pointed it down the wall, and blasted into the oncoming griffins, killing two and wounding a Randallan on a ballista.

At the ballista nearest Hauskyld, Gideon leaped up with a machine pistol, tearing the Randallan there almost in half at the close range and killing a handsnake creeping toward him. He spun the ballista around and let another bolt go, up into the oncoming hundreds of triples. A moment later, a Randallan musket ball smashed his arm, and two Randallans threw him screaming from the wall.

Ballistae on the other walls were beginning to fire, but slowly and irregularly. The second wave swept past the few bolts onto the captured portion of the wall. Griffin after griffin thumped onto the pavement.

Two griffins standing shoulder to shoulder held back a party of Terrans trying to storm up the main staircase onto the wall. Gunshots rang out, and the griffins fell, but their bodies partly blocked the way, and more Terrans fell to the muskets of the Randallans.

The counterattack fell back. At the wall corners, Terran and Randallan fought desperately for the machine gun emplacements.

Hauskyld strained to look around; moving his neck sent long needles of pain racing up his arms. Great swarms of triples rose off at the horizon—perhaps as many as a hundred squadrons were sweeping in. The big anti-aircraft guns thundered at them, but with no appreciable infrared to guide on, the shells, set for distance only, seldom burst near a triple.

In the courtyard, Terrans were running to the staircases. Now occasional ballista shots brought down triples, and here and there a scatter-gun boomed.

He twisted around painfully. So far there was no trace of the Templars or of the senior Aquinian officers. Apparently Sherman, lost in his paranoid haze, would not let them out of the brig.

On one corner, the Randallans overran the machine gun, throwing the last two defenders to the pavement below. At the other, two clever Randallans figured out how to work the scatterguns.

Bracing their feet on the outer walls and leaning far out of the fort, they swung the guns down at the stairway and fired. The stair dissolved into gory, screaming panic. Two men had taken the brunt of one blast; their blood sprayed the other troops. The other shot had hit the wall high and sprayed back down onto the staircase, wounding almost everyone there. The smell of blood panicked the survivors. They fled, crashing into the backs of the almost-organized counterattack.

During their confusion, a griffin bounded forward and leaped in among them, slashing wildly and injuring many of them.

Yet they tried to fight on. Hauskyld felt a little swell of perverse pride, though it was all for nothing, no matter who won. Some two thousand triples were less than a minute from landing.

Hauskyld heard a bang on his left. A young Aquinian, not more than fifteen, had just shot the helpless, tied-up Rha'ngri squarely in the face; his wide, staring eyes, and his pistol, leveled at Hauskyld.

A griffin slapped the boy with a wing, knocking him from the parapet to the ground below. Hauskyld leaned as far as he could to see what had happened.

The boy's left leg corkscrewed under him; his right ankle, spouting

blood, bent backwards. Hauskyld shouted at the boy not to move, to stay where he was, but he raised himself on his arms to drag himself away from the fort.

Hauskyld wondered for years afterwards why the boy chose that direction. There was nothing out there but the mines, the desert, and the Randallans. Any hope or friends he might have had would be in the fort; yet the boy dragged himself away from it, using only his hands, dragging the useless agony of his shattered legs behind him, for almost twenty meters until a mine tore him in half.

"Hauskyld!" Thwov had come up behind him and cut his bonds; he almost fell from the wall himself before sitting with an undignified thump. "Wipe your face."

He reached down to pull up his tunic front, saw that he had already vomited all over it, and wiped some of the remaining vomit out of his beard with a sleeve. Clio was sitting beside him, shaking her arms; in a moment, Kuf and Thingachganderook were free as well.

Down in the courtyard, Father Sherman led a ragged sally, armed with nothing more than a crucifix brandished over his head. His white hair shone pink in the sunlight, and he was bellowing the old Aquinian Battle Hymn at the top of his lungs.

A crossbow bolt suddenly sprouted from the old man's forehead. He was just close enough for Hauskyld to see that his whole face looked up, focusing around the bolt, as if trying to see it. Then he fell forward.

Even Randallans and Terrans locked in close combat paused a moment for breath. Then the loudspeakers buzzed.

"This is Templar Captain Kanegawa. As ranking officer of the Christian garrison, I order all Terrans to surrender to the authority of the High Kings as soon as they can disengage from immediate combat." Then, carefully reading the phonetic script Hauskyld had worked out for him and passed to him that morning, he repeated the message in True Speech.

Suddenly the fight was over. The Terrans gave up in ones and twos at first, and then en masse, backing away and dropping their weapons. The Randallan officers herded them together.

Within minutes the High Kings landed in the courtyard. "I must report," Kuf said. He flapped down to land beside Vwat.

"The prisoners," Clio said. "In the brig. We'd better make sure that nothing happens down there when they see all those Randallans walking in." She waited. "Somebody might decide to be a hero."

He watched her go.

Something smooth and scaly crawled onto his lap. *Bless me Father for I have sinned.*

"Thingachganderook?"

*Yes. Not much time. I—* There was a shrill scream like audio feedback in Hauskyld's mind; he shut his eyes tightly and clamped his hands over his ears, but it would not go away.

*It stopped. I am sorry. Lost control. Will not happen again. Father, I must confess that in a few moments I shall poison myself. I have now been made xhu'gha twice and it is more than I can bear.*

"I understand," Hauskyld said, dully. "I grant dispensation."

*Thank you. I had not known that was possible.*

"Do you repent of all previous sin, acknowledging your guilt?"

*Yes.*

"Do you believe in God the Father and Jesus Christ His Only Begotten Son?"

*Yes.*

"Are you of a species for which death is the only alternative to madness and defilement of the soul?"

*Yes.*

"Then you are forgiven. Go in peace."

*The memories I carry must be preserved before I die. Will you carry them for me, and let a member of the Silent People read them from you as soon as is possible?*

There was no one else. "Yes."

And he was awash as wave upon wave of sentient experience on Randall washed over him, eons rolling over him, lifting and pulling him back to the first awakening of the Silent People, before the Great Cold and Dark that brought forth the wingpeople, before the Twenty Years' Storms that brought forth the handpeople afterwards, from womb to womb and birth to birth in endless waves, down branch upon intertwining branch, fanning out through a thousand ancestors who then contracted to fewer than ten, each a whole life, piling up back so far that there was no memory before—

*Thank you.* There was the moment of waiting to not be, and then he was there by himself, and Thingachganderook lay dead across his lap. Gently, he moved the handsnake onto the pavement, and went down to find the others.

Clio stood at the foot of the steps. "The prisoners are all okay. Vwat and Krish'pha say we'll all sit down to a conference after a feast they want to throw. They understand perfectly about Sherman's senility—Randallans get something similar. Are you all right?"

"Yes. I—" He swallowed, realizing he was shaking. "Thingachganderook is dead. Killed himself. I was there—"

Hauskyld heard Kuf's sudden, earsplitting, terrible keening, and turned to face him. The griffin asked, "Did you get his memories?"

"Yes. And his confession." He stifled an urge to ask why it mattered. He staggered toward the High King.

To Hauskyld's surprise, there were fewer than twenty Terrans, counting himself and Clio, staying behind on Randall. The rest were leaving today on the Gate.

He had radioed a full report, including the petition for inclusion in the Christian Commonwealth, but it would get there only days before the Gate itself did. He hoped it would at least mitigate the testimony of several hundred battered survivors, especially since his handful of followers did include a Templar captain.

"I want to fly griffinback and explore a wild planet," Kanegawa had explained. "It beats making men shine their boots." Now he waved goodbye to his troop.

The technicians finished the checkout and activated the Gate, and entry began. Wagons of papers and museum pieces, whole file cabinets, rank on rank of men and horses, all vanished into a space only thirty centimeters deep, without emerging from the other side.

The Randallans plied the Terrans with questions about how it worked, but though they had gotten almost to the brink of Newtonian physics, there was a still longer gap to be bridged before they could grasp that "the conducting units in the gate set up a hypersymmetry within it so that spacetime is severely distorted, with the time axis folded very close to the spatial one so that  $c$  approximates zero within the field."

Of course, the Randallans had often seen things emerging from such a space, as the hypersymmetry was defolded.

Well, as full citizens in the Commonwealth, by the time the next Gates arrived, the Randallans would already have made the long march through Maxwell and Einstein and Valasquez, perhaps even on to Suraphatet or to Runeberg himself.

They turned to go. It would take them an hour to fly to a safe distance from the pulsed fusion blast of the Gate. Kuf and Thwov were waiting for Hauskyld and Clio. Kanegawa, with Phreg, a *xhu'gha* griffin that Hauskyld did not know, looked a little uneasy.

"Nothing to it," Hauskyld assured him. "More up and down than an airplane, but a lot more dependable."

Kanegawa grinned at him. "Yeah, but I don't have to worry about the airplane knowing more than I do."

At the command, they ran across the redrock beside the griffins, and bounded into the saddle as the griffins flapped upwards in a great thunder of wings.

Hauskyld thought of looking back at the Gate, but against the light of its takeoff, and, a few days later in the night sky, the sun-bright white comet shifting to red as the Gate departed this solar system at over 100



g's, what was an ugly piece of steel in the desert? He kept his back turned, concentrating on once again flying—really flying.

The desert swept away below them. Hauskyld knew he was happy. There was so much to be done. ●

## NEXT ISSUE

We go to Mars next month, as **Eric Vinicoff** makes his *Asfm* debut with our August cover story, "The Great Martian Railroad Race." Entrepreneur Timothy Lo thinks he knows just what the developing Terran colonies on the Red Planet need—a railroad! In order to convince anyone *else*, however, he must plot and scheme and wheel-and-deal and connive, and ultimately risk both his fortune and his future in a bizarre race against some very stiff competition. The amazing **Howard Waldrop** is also on hand for August, with a hilarious high-energy look back at the Sixties, in "Do Ya, Do Ya, Wanna Dance?"—a look as funny, poignant, and quirky as one would expect from Waldrop, who has been called "the resident Weird Mind of his generation." Hugo-and-Nebula winner **Frederik Pohl** then takes us sideways in time in "Waiting for the Olympians," a witty and fascinating examination of a society that is not *quite* our own, and the difference that difference makes at a cultural crisis-point for all humanity, First Contact with a star-traveling race who *may* offer us the secrets of their technology...

ALSO IN AUGUST: Hugo-and-World Fantasy Award winner **Avram Davidson** returns with a funny and erudite investigation into the mysteries surrounding the life of "El Vilvoy De Las Islas"; **Andrew Weiner** makes a wry attempt to unravel some classic Time-Travel Paradoxes in "The Grandfather Problem"; **Walter Jon Williams** takes us down some Mean Streets to meet some very unusual high-tech types, in "Flatline"; **Stephen Leigh** returns to these pages after a long absence with a bittersweet study of the consequences and continuity of love, in "Evening Shadow"; and **Steven Popkes** returns to spin a moving tale of an alien among us, and the alien in us all, in "The Color Winter." Plus an array of columns and features. Look for our jam-packed August issue on sale on your newsstands on June 28, 1988.

COMING SOON: "The Scalehunter's Beautiful Daughter," a prequel to "The Man Who Painted the Dragon Griaule," by **Lucius Shepard**. Plus major new stories by **Harlan Ellison**, **Kim Stanley Robinson**, **Somtow Sucharitkul**, **Nancy Kress**, **Ian Watson**, **Jane Yolen**, **Robert Silverberg**, **Cherry Wilder**, **Harry Turtledove**, **Judith Moffett**, **Orson Scott Card**, **Lisa Goldstein**, and many others.

# ON BOOKS

by Baird Searles

## Pop.: 2 Trillion

### The Hormone Jungle

By Robert Reed

Donald I. Fine, Inc., \$17.95

As science fictional futures get more and more complicated, authors are taking up more and more of their books in simply explaining the background. (And reviewers are harder and harder put to make them coherent in a brief space, but that's an occupational hazard—but I digress . . .) A mainstream author can set his/her story in Paris with at least some expectation that the reader will have a vague notion where Paris is and what it's like (of course, that may be optimistic given the general run of geographical knowledge these days—but I digress . . .) and is then able to get on with the story.

But if an author in our field has laid his plot in a particularly complex, detailed future, he has to explain that future. This is part of the art of writing SF, of course, and part of what makes it a different ball game from other genres. But it can be a tricky problem to handle, and not too many writers are doing it well lately. The plot bogs down in explanation, or the setting is so sketchy that it doesn't ring true.

Robert Reed, in *The Hormone Jungle*, spends a lot of time throughout the book giving you background on his *very* intricate future of several thousand years hence. But this is not necessarily a bad thing when it's well done; the extrapolation of futures is part of what makes science fiction science fiction, and the trick is to keep it interesting. Reed certainly keeps it interesting.

The Solar System has a population of two trillion beings. None of them is alien in the sense of being of extraterrestrial origin, but thanks to genetic "tailoring" and advances in artificial intelligence, the variety is staggering.

There are any number of worlds; various planets and moons have been terraformed, but humans have also changed their physical (and therefore mental) structure to meet some worlds half-way. There are also a host of artificial worldlets.

This makes for an interesting political situation. There is *such* a diversity of beings that no group is strong enough to dominate—or even particularly wants to dominate. There aren't even any of those big corporation villains that have been so common lately.

Aside from the run-of-the-mill

genetically altered races, some of the inhabitants of this bazarre future are: the AIs, artificial intelligences and distinct personalities that have no bodies as we know them, but are legion throughout the omnipresent electronics systems; "Ghosts," the electronically preserved personalities of dead humans, who live (and interact with the living and each other) in a sort of never-never land created and maintained for them by the AIs; the Freestaters, warriors of the myriad strifeless "Freestates" of Earth, fiercely independent Amerindian revival cultures; and the "Flowers," synthetic courtesans derived from single-helix nucleic acids, whose sole function is to please (intellectually and emotionally as well as physically).

See what I mean? We haven't even gotten to the plot yet. Surprisingly, Reed has managed to squeeze in a fairly busy one while revealing the infinite details of his background. It has to do with Miss Luscious Chiffon, who is not a Tennessee Williams heroine despite the name, but a new kind of Flower, one that incorporates the personality of a Ghost, and her escape (taking with her a fortune in quiver chips) from her owner. She enlists (seduces is more the word—Flowers have cute tricks like spraying pheromones at will) the aid of Steward, a renegade Freestater, and the chase is on, with them against her scumbag owner. All sorts of other people get involved, such as a cyborg Morniger from

Venus, a Gardner from Garden (which is the re-formed Europa), and a Ghost named Olivia.

If one must quibble—it's not a likable cast of characters. Steward is a fairly dense hero, and Miss LC is an antiheroine if ever there was one. But with all that's going on, who needs good people? *The Hormone Jungle* is popping with good ideas—like two trillion of them. (Which is why this is such a long review.)

## **Nights For Days**

### **Mercedes Nights**

By Michael D. Weaver

St. Martin's Press, \$16.95

It's the middle of the next century. The United States is involved in a long-running war with Russia that doesn't seem to have done too much damage to either country, though Europe seems to be suffering badly (Paris has just been destroyed).

Things in the U.S. aren't so bad, though some years back Americans had been through a particularly nasty period of repression called "Moral Prohibition." An extremely sensible Presidential candidate, Warren Keyes, is making waves with talk of stopping the war. A secretive corporation, "SubSpace," under the direction of the mysterious plutocrat, Magnus, seems to have perfected matter transmission and space travel, but all this advanced technology is not made public.

Michael D. Weaver has provided a neat and fairly convincing near-

future background for his novel, *Mercedes Nights*. He's also come up with a jim-dandy plot about a vid-star sex-symbol, Mercedes Night, who discovers to her horror that clones of herself—living, breathing, thinking facsimiles—are being offered for sale.

The complications are legion, and not only for poor Mercedes, since she is having an affair with Presidential candidate Keyes. Besides, who has the technology to pull off such a thing and why "waste" it on such a sleazy stunt? Could it be Magnus—or maybe the government itself?

Weaver unfortunately dilutes his spiffy plot by spreading it thin among a huge cast of characters, most of whom have to do with the story only peripherally. Much too much time is spent on them, particularly a druggy lot who gather at the house across the street from the clone "factory" and do a lot of hallucinogens and listen to '60s (that's 1960s) music. (The contemporary equivalent would be a group who smoke opium and listen to Victorian music hall songs.) I wasn't convinced. This multiplicity of characters is even more complicated when various Mercedes clones start taking off on their own. (It would have been more fun to amplify the adventures of the clones—one heroine going off in several directions, as it were.)

A particularly neat idea throughout the novel is the "intelligent" houses of various characters, personified computers who

respond to voice commands and do every conceivable household duty. Mercedes calls hers Igor.

It's interesting that the dust jacket on *Mercedes Nights* features a quote from another author, apparently put there to make you want to buy the book, that characterizes the novel as "dirty-minded." This is arguable, since there's no more low-down sex (or violence, depending on what you think of as dirty) in this one than in much else that's being published these days. But is this how SF has to be sold these days? No, I'm not moralizing—just wondering . . .

## **Winning Point Swordpoint**

By Ellen Kushner

Arbor House, \$15.95

Ellen Kushner's fantasy novel, *Swordpoint*, is original, quirky, and has one big problem. Before we get into that, let's touch on why it's original and quirky.

It takes place in a mythical realm—a phrase that implies a certain fairy tale medieval ambience and a childlike lack of sophistication. Forget it; this mythical realm is not into child's play and has nothing to do with the middle ages. It's closer to the eighteenth century, redolent of the more decayed sections of the *ancien regime* in Europe. There is a rich and decadent aristocracy (who live on "the Hill"), playing its stylized tune over the masses of picturesque poor, who live in the squalid—but picturesque—Riverside section. Sec-

tion of what? Of the unnamed city which seems to be the capital of this unnamed country.

The heroes of this gunless culture are the swordsmen, skilled mercenaries hired by the aristocracy to settle their differences according to a very complex code of rules and honor. And the hero of heroes (and of the book) is one Richard St Vier, young swordsman *extraordinaire* and current champ. He is in the midst of a passionate affair with the mysterious young Alec, who has turned up in Riverside recently but will give no clue as to his past. (However, his accent is distinctly aristo.) Put your eyebrow down; this is a pansexual society. There seem to be much stricter rules about where you stick your sword than where you . . . er, you get the idea.

Richard and Alec become involved in an amazingly complicated intrigue, seemingly revolving around the beautiful Duchess of Tremontaine and *her* lover, the one-eyed Lord Ferris, Dragon Chancellor of the Council of Lords. Intrigue, political and sexual, is the lifeblood of this society, but this particular intrigue is byzantine even by its standards, and makes up the substance of the book. It all comes to a rousingly satisfying conclusion in a Grand Council meeting and trial.

See what I mean? Original and quirky, and a felicitous first novel, even if the convoluted scheming in bedroom and council chamber tends

to slip beyond the comprehensible at times.

Oh, yes, that problem I mentioned. It's simple—Ms. Kushner's fantasy novel hasn't any fantasy. You might say that *Swordspoint* is a very healthy novel despite its decadent surface, since it contains nothing unnatural (i.e., supernatural, i.e., magical). But does the fact that its setting happens to be a time and place nobody has ever heard of make it a fantasy? I'll leave that to wiser heads to debate, and just note that if you're addicted to dragons and magicians, this is not your cup of potion. However, if you like intrigue and swordplay in an original setting . . .

## **A Pod of Whelans**

### **Michael Whelan's Works of Wonder**

By Michael Whelan  
Del Rey, \$25.00

Have you looked at the new releases shelves of the SF and fantasy section in your local bookshop lately and wondered why your eyes glaze over? Take a really good look next time—don't think about the books as books, but just the cover lineup as a visual experience. Discouraging, isn't it? Repetition is the word—dragons on the fantasy, cloned people waving the current equivalent of ray guns on the science fiction (with a space ship in full blast now and then for variety). Almost nothing in the way of style, good or bad.

The cover question is a sticky one. Publishers quite rightly want

to sell their books, and it boils down to the fact that *they* say that the book must be instantly identifiable as genre to the average reader, therefore covers have to be done to a certain formula. Given the fact that almost all of them are to be found in the SF/fantasy section of a bookstore, one wonders *why* they have to be that simply-mindedly identifiable—wouldn't something really different stand out? Ah, say the publishers, but what about all those racks in supermarkets, etc., where all kinds of books are jumbled together? A point, admittedly, but this means that cover art is dictated by the kind of person who only buys their books in supermarkets, etc. A sad state of affairs, like so much else in this vale of tears. Particularly if one has, as I have recently, been looking back through the various folios of pulp artists from the mid-century magazines, by such artists as Virgil Finlay and Hannes Bok, and recollected what SF art is really capable of, when *not* being done to formula (or at least such a limiting formula).

Luckily, there are current artists who can transcend formula, and among these rare few, Michael Whelan stands out. Why is a question that could take up columns and columns, but from a non-artist's point of view, one can only cite his lovely, pellucid colors, the sleek, sensual perfection of his figures (without their becoming wax-works), and his imaginative, glowing backgrounds. Combine this

technical expertise with a true understanding of fantasy, and one might approach the reason for his deserved popularity. *Michael Whelan's Works of Wonder* is a collection of much of his best cover art, all done for the publisher of this book, but still showing a remarkable range. The paintings are reproduced far larger than the books they covered, and often even the most familiar take on a whole new look at this size, and without the omnipresent lettering.

Most noteworthy of a noteworthy lot in this collection: the four paintings for McCaffrey Pern novels; the two black, grey, and red paintings which became (in bits and pieces) *seven* covers for the most recent Lovecraft paperbacks (extraordinary!); and, best of all, the magnificent covers Whelan did for the eleven Mars books by Burroughs, which are, indeed, absolute wonders, even for the pickiest Barsoom buff.

With each painting in the book is a short commentary by the artist, a sampling of preliminary sketches, and, in some cases, intriguing alternate paintings for the same novel which *weren't* used.

Now can one be greedy and ask for a collection of less-familiar Whelans done for *other* publishers?

## **Napoleon V** **Napoleon Disentimed**

By Hayford Peirce  
Tor, \$3.50 (paper)

At this point we're flooded with so many alternate histories that

reviewing them has become almost a formula. This is not necessarily a complaint, but the subgenre itself is the simplest of formulae: one basic concept (changing a factor in the past) can give rise to an infinite number of worlds (and obviously, an infinite number of novels of all sorts of qualities).

So in coping with it, the first thing to do is establish where the fork in history is in each particular case. In *Napoleon Disentimed* by Hayford Peirce, it's no definite point in time, but it seems that the Mongols held on to Russia, which thereupon never developed as a European power and never became a factor in the Napoleonic wars. Without Russia (and the disastrous invasion of), Napoleon handily forged a United States of Europe, including England.

He then proceeded to have eleven children, who, à la Victoria's family, married into all of European royalty. England, for instance, is ruled by a Bonaparte-Hanover dynasty. And the French Empire is ruled by His Imperial Majesty l'Empereur de Tous les Français et du Grand Empire des États-Unis de l'Europe Napoleon V.

Into this universe drops a charming con man from ours (ours ca. 1991, that is), thanks to the malfunctioning diamond-studded electronic crown of a space-age swami. The con man (The MacNair of MacNair is his echolalic current nom-de-crime) has been drawn cross-time by the fiddling in the Napoleonic universe of a group of

German and English scientists (the Brits belonging to a revolutionary anti-Napoleon group) attempting to invent a time machine.

MacNair immediately muddies the waters by claiming to be a member of the British royal family in his (i.e., our) universe, but for some reason invents yet another alternate royal genealogy; he claims to be Prince William Ernest Augustus, third in line for the throne. (This leads to almost fatal confusion for the reader—why couldn't he just claim to be our own Prince Andrew?)

Then follows an endless series of chases and escapes, involving the MacNair, the revolutionary English, the security forces of the Emperor (as well as the Emperor himself, eventually), and the diamond-studded crown, which keeps getting lost, strayed, and stolen but which has an unnerving habit of teleporting itself onto the MacNair's head when it is turned on.

All this careers across Europe from Berlin to Paris to Scotland and across the Atlantic to the state of Franklin (a/k/a Maine in our world) where MacNair further complicates things by looking up his counterpart in that universe. MacNair II is even more of a rogue than MacNair I, and we have the two of them conning each other as well as the assorted forces mentioned above. The real time machine eventually gets invented, Napoleon I is timenapped, and both the MacNairs end up taking his place at one point or another.

All this sounds like more fun than it is, probably because despite the inventive background and non-stop events, it just goes on too long. *This* alternate history certainly tends to repeat itself.

## Reprise

### Songmaster

By Orson Scott Card

Tor, \$3.95 (paper)

Look out, he's off again on his favorite subject—the number of SF classics that are out of print. And this isn't just oldies—there's modern stuff by hot-selling authors that isn't available, which doesn't make sense in this buck-making world. For instance, a marvelous early novel by last year's multiple-award-winning Orson Scott Card has been unavailable for several years. *Songmaster* is now back in print, thank God, and to celebrate the event, I'll paraphrase what I wrote about it almost ten years ago:

A major trend of the decade in science fiction has been toward a conceptual bias, a little hard to define but which can be thought of as social-anthropological or "soft" SF, as opposed to hard-core or high tech SF. In it, we have been getting meticulously built cultures (future and/or alien) with the characters and plots (if any) growing out of these cultures. It's all very intelligent and humanistic and just lately, I've found myself wishing that a character in one of these well-thought-out books would pull out a laser gun and zap somebody.

When I started *Songmaster*, I thought "Here we go again." The Songhouse on Tew educates singers and sends them out into the Galaxy. However, the songs of the Songhouse are not just singing as we know it. They are a method of communication, of manipulation even; the lore of the Songhouse has enhanced the power of music to a point never before reached. The supreme Songhouse graduates are the "Songbirds" who are trained from childhood to just prior to adolescence (which is chemically delayed) to vocalize for one person only; they therefore cost a king's ransom to "hire" (it's really a sort of peonage). But there are enough people in a vast and varied Galaxy that can afford a king's ransom, and the Songhouse takes care of its own, so no one suffers.

That's a simplified background to a very unsimple milieu. And my first impression was that this was going to be a sort of intellectualized "The Little Songbird That Could," and the first few chapters tended to confirm this, since we do meet the most prodigious of all Songbirds and follow his training for the most gilded cage of all, that of the ruler of the Galaxy.

But then things take off—and they *really* take off! More than a few people get zapped along the way, and there's intrigue, action, kidnappings, love, hate—and surprises. And more than that I will not say about the plot. Discover it for yourself. But I will add that Card has achieved, with all the ac-



tion and emotion, a quality that many recent writers have striven for and few achieved, and that is a mythic quality, a feeling of legend that is extraordinarily touching. Quite an accomplishment.

Recent publications from those associated with this magazine in-

clude: *Norby Finds a Villain* by Janet and Isaac Asimov, Walker, \$12.95; *The Best of Isaac Asimov's Science Fiction Magazine* edited by Gardner Dozois, Ace, \$3.50 (paper).

Books to be considered for review in this column should be submitted to Baird Searles, Suite 133, 380 Bleecker St., N.Y., N.Y. 10014. ●



## GAMING

(From page 16)

you like. But *Instant Music* also comes with an extensive library of songs that you can load and tinker with, changing the tempo, the instruments, or the volume.

Again, the serious musician could probably make some intelligent use of the program... I imagined some dynamite modern dance piece when toying with some appropriately bizarre sounds.

More fun than your Casio mini-keyboard, *Instant Music* also takes up less space.

Lastly, we come to *Test Drive* (Accolade, 20813 Stevens Creek Blvd., Cupertino, CA 95014). Now

I admit that the charm of this item was, at first, lost on me. After all, so far I've owned a VW Bug, a Pinto, and now an Escort. The world of glamorous automobiles was totally terra incognita to me.

So this clever program, which lets you drive everything from a Ferrari Testarossa to a Lotus Turbo Esprit, intimidated me a bit.

No matter... Once I was behind the wheel and staring at the dash, I enjoyed the fantasy of driving a performance automobile. The instrumentation for each car is totally accurate, as is the gear-shifting sequence. And while there are some "game elements" in *Test Drive*, the fun here is simply driving the car (without sending it off the road) and enjoying the world as it flies by. ●

# SF CONVENTIONAL CALENDAR

by Erwin S. Strauss

There are a number of specialty cons coming up soon. Plan now for social weekends with your favorite SF authors, editors, artists and fellow fans. For a longer, later list, an explanation of cons, & a sample of SF folksongs, send me an SASE (addressed, stamped #10 (business) envelope) at 4271 Duke St. #D-10, Alexandria VA 22304. The hot line is (703) 823-3117. If a machine answers, leave your area code & number. I'll call back on my nickel. Early evening's often a good time to phone cons (most numbers are homes). Be polite on the phone. When writing cons, enclose an SASE. Look for me at cons behind the Filthy Pierre badge, with a musical keyboard.

## MAY, 1988

20-22—**KeyCon**. For info, write: Box 3178, Winnipeg MB R3C 4E6. Or call: (703) 823-3117 (10 am to 10 pm, not collect). Con will be held in: Winnipeg MB (if city omitted, same as in address) at the Holiday Inn Downtown. Guests will include: Gene Wolfe, Chas. DeLint, artist K. Davies, fan F. Skene.

20-22—**Oasis**. Howard Johnson Fla. Center, Driando FL. Andre Norton, artist Mary Hansen-Roberts.

27-29—**VCon**. (604) 271-5951. U. of BC Gage Ctr., Vancouver BC. H. Clement, J. P. Hogan.

27-30—**Space Development Con**. (303) 692-6788, (312) 446-8343. Denver CO. Nat'l. Space Soc. meet.

27-30—**BayCon**. (408) 446-5141. Red Lion Inn, San Jose CA. About 3,000 expected. No guests known.

27-30—**MediaWestCon**. (518) 372-0738. Hilton Inn, Lansing MI. Media-oriented, but fairly mellow.

27-30—**DisClave**. Sheraton, New Carrollton MD. Barbara Hambly, artist Jim Burns. In the DisCave.

## JUNE, 1988

3-5—**Conquest**. (816) 524-4852. Howard Johnson's, Kansas City MO. Howard Waldrop, David Hartwell.

3-5—**GaytaxiCon**, Box 1051, Back Bay Annex, Boston MA 02117. Relaxicon "for gay people and friends."

10-12—**DeepSouthCon**, 2406 Park Lake Lane, Norcross GA 30092. (404) 662-0389. Atlanta GA. Benford.

10-12—**Australian Nat'l. Con**, Box 272, Wentworth Bldg., U. of Sydney 2006 Australia. S. Robinson.

10-12—**Ad Astra**, Box 7276 Stn. A, Toronto ON M5W 1X9. D. Card, R. Macavoy, fans Taral, F. Skene.

10-12—**Hostigos**, 400 S. Gill, State College PA 16801. J. Pournelle. Life & work of H. Beam Piper.

10-12—**Congregate**, 67 Ayres Rd., Peterborough PE1 5EQ, UK. Terry Pratchett, Bob Shaw, Ian Banks.

16-19—**Boreal**, % Vonarburg, 266 rue Belleau, Chicoutimi PQ G7H 2Y8. French-language SF & fantasy.

## JULY, 1988

1-4—**WesterCon**, Box 26665, Tempe AZ 85282. (602) 839-2543. Phoenix AZ Robert Silverberg.

## SEPTEMBER, 1988

1-5—**NoLaCon II**, 921 Canal #831, New Orleans LA 70112. (504) 525-6008. WorldCon. \$70 to 7/14/88.

## AUGUST, 1989

31-Sep. 4—**Noreascon 3**, Box 46, MIT PO, Cambridge MA 02139. WorldCon. Andre Norton. \$60 now.

## AUGUST, 1990

23-27—**ConFiction**, Box 95370 - 2509 CJ, The Hague, Holland. WorldCon. Haldeman. \$60 to 12/1/88.

28-Sep. 1—**ConDiego**, Box 203534, San Diego CA 92120. (619) 265-0903. NASFiC. \$35 until ???.



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